ORIGINAL

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MEMORANDUM

TO: Docket Control

FROM: Elijah O. Abinah
Director
Utilities Division

DATE: April 25, 2019

RE: IN THE MATTER OF POSSIBLE MODIFICATIONS TO THE ARIZONA CORPORATION COMMISSION'S ENERGY RULES (DOCKET NO. RU-00000A-18-0284).

SUBJECT: STAFF REPORT FOR THE POSSIBLE MODIFICATIONS TO THE ARIZONA CORPORATION COMMISSION'S ENERGY RULES

Attached for review and discussion is Staff's Report regarding Possible Modifications to the Arizona Corporation Commission's ("Commission") Energy Rules. Commission Rules discussed include: Renewable Energy Standard and Tariff, Resource Planning and Procurement, Energy Efficiency (Electric and Gas), the Environmental Portfolio Standard, and Net Metering. Appendix A, B and C are attached and include: A) Staff proposed language for the Commission's Energy Rules; B) A red-lined version of the Commission's existing Energy Rules; and C) A summary of written comments filed by stakeholders.

Staff will be hosting a Stakeholder Meeting to discuss the Commission's Energy Rules on Monday, April 29, 2019 at 10:00 AM and April 30, 2019 at 1:00 PM in Hearing Room 1 of the Commission's Phoenix office.

EAO:PCL:elr/MAS

Originator: Patrick LaMere

Attachments

Arizona Corporation Commission
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STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

ARIZONA CORPORATION COMMISSION
RULEMAKING
DOCKET NO. RU-00000A-18-0284

IN THE MATTER OF POSSIBLE MODIFICATIONS TO THE ARIZONA CORPORATION COMMISSION'S ENERGY RULES

APRIL 25, 2019

EXECUTIVE SUMMARY
ARIZONA CORPORATION COMMISSION - RULEMAKING
DOCKET NO. RU-00000A-18-0284

On August 17, 2018, pursuant to Commission directive, Staff opened a rulemaking docket to consider possible modifications to the Commission's Energy Rules. In addition, the Commission asked Staff to take into consideration Commissioner Tobin's Energy Modernization Plan. Subjects considered for possible modification included the following:

1. Renewable Energy Standard and Tariff ("REST") rules,
2. Electric Energy Efficiency Standards rules,
3. Gas Utility Energy Efficiency Standards rules,
4. Net Metering rules,
5. Resource Planning and Procurement rules,
6. Retail Electric Competition rules,
7. Electric vehicles,
8. Interconnection of distributed generation facilities,
9. Blockchain technology,
10. Technological developments in generation and delivery of energy,
11. Forest bioenergy,
12. Baseload security,
13. The statutory Biennial Transmission Assessment,
14. And other energy-related topics.

In Decision No. 77043, the Commission directed Arizona Public Service Company ("APS") to either expand and modify its current AG-X to allow medium-size commercial customers to participate or propose a new AG-Y alternative generation/buy-through program that would be for medium size commercial customers in its next rate case. In addition, Tucson Electric Power Company ("TEP") and UNS Electric. Inc. ("UNS Electric") were directed to propose an AG-Y alternative generation/buy-through program for medium and large commercial and industrial customers in their next rate cases. In Decision No. 77044, the Commission adopted a Policy Statement Regarding Electric Vehicles, Electric Vehicle Infrastructure, and the

Electrification of the Transportation Sector in Arizona. In Decision No. 77045, the Commission adopted a Policy Statement Regarding the Role of Forest Bioenergy in Arizona.

Over the past few months, Staff has conducted numerous stakeholder meetings and workshops to address the modifications to the Commission's Energy Rules.

The purpose of this document is to present an initial draft of Staff's proposed modifications to REST, resource planning, and electric/gas energy efficiency rules. Staff's initial draft of the Energy Rules was an extensive undertaking. It is anticipated that the proposed Rules may yet undergo substantial revisions with additional provisions added, deleted, or modified through the workshop process and informal comment before they are finalized, and the formal rulemaking process commences. Staff's proposal with respect to retail electric competition will be docketed in June and discussed at a workshop scheduled for July.

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INTRODUCTION

There is a need for the Arizona Corporation Commission's ("Commission") existing energy rules to be revisited due to evolving technologies and the changing marketplace. Based on direction from Chairman Tom Forese, Staff issued a Notice of Inquiry regarding Commissioner Tobin's Energy Modernization Plan. Due to comments received and other input from stakeholders, Staff put together the following draft, which addresses:

1) Arizona Corporation Commission Rules:

   a) Resource Planning and Procurement;

   b) Renewable Energy Standard and Tariff ("REST");

   c) Electric Energy Efficiency Standards;

   d) Gas Energy Efficiency Standards;

   e) Net Metering; and

   f) Environmental Portfolio Standard.

2) Energy related topics:

   a) Baseload Security;

   b) Forest Bioenergy;

   c) The Biennial Transmission Assessment; and

   d) Technological Developments in Generation and Delivery of Energy.

THE COMMISSION'S ENERGY RULES

In its initial proposed draft of the Commission's new Energy Rules, Staff has considered stakeholder written comments in proceedings referenced in Appendix D, Commission workshops, and Commissioner proposals. Key trends within the United States have also been considered, including but not limited to recent legislative revisions, key policy design features, regulatory utility compliance with interim targets, past and projected impacts on renewables development, and historical compliance costs.

Resource Planning and Procurement Rules

The Commission adopted Resource Planning and Procurement Rules[1] in 1989 for utilities defined as a Load Serving Entity ("LSE")[2] to meet the electric needs of their customers by choosing the best mix of resources, with input from stakeholders in a transparent process. In Commission Decision No. 71722 (June 3, 2010), the Commission amended the original Resource Planning and Procurement Rules to include consideration of a diverse portfolio of purchased power, utility-owned generation, renewables, demand-side management, and Distributed Generation ("DG").

The Commission's Resource Planning and Procurement Rules outline a process for each LSE to file its Integrated Resource Plan ("IRP"). Each LSE's proposed IRP assesses how it will meet forecasted annual peak and energy demand through a balance of supply-side and demand-side resources over a specific time period.

The Commission's Resource Planning and Procurement Rules require each LSE to submit an IRP proposal every two years that outlines its future 15-year resource plan, including methods and assumptions used for assessing potential resources to meet future energy demand. The resource plan must include a general outline of the procedures it will follow for public input and participation before a final resource plan is completed and filed.

In Staff's review of the Commission's Resource Planning and Procurement Rules, Staff believes modification of the Commission's IRP rules are necessary to ensure each LSE:

- Fulfills its obligations to serve its customers at just and reasonable rates;
- Uses the most cost-effective manner to meet load capacity needs;
- Minimizes impacts on ratepayers' bills;
- Evaluates existing resources, including retirement of fossil fuel generating plants and expiring Purchase Power Agreements ("PPAs");
- Achieves a goal to procure at least 40 percent renewable energy resources by 2035;
- Strengthens reliability, resiliency, and stability of a LSE's transmission and distribution systems;
- Implements energy efficiency and demand response programs;

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[1] Arizona Administrative Code ("A.A.C.") R14-2-701 *et seq.*

[2] *See* A.A.C. R14-2-701(26) "Load-serving entity" means a public service corporation that provides electricity generation service and operates or owns, in whole or in part, a generating facility or facilities with capacity of at least 50 megawatts combined. LSEs include Arizona Public Service Company ("APS"), Tucson Electric Power Company ("TEP"), UNS Electric, Inc. ("UNS Electric"), and Arizona Electric Power Cooperative, Inc. ("AEPCO").

- Reduces Green House Gas emissions and water consumption; and
- Addresses Community Choice Aggregation ("CCA"), Tribal Lands, and limited-income communities.

REST Rules

In Commission Decision No. 69127 (November 14, 2006), the Commission adopted new REST Rules[3] which required affected utilities[4] to satisfy an annual renewable energy requirement by obtaining Renewable Energy Credits ("REC"). Commission Decision No. 74882 (December 31, 2014) amended the REST rules in order to clarify and update how the Commission deals with renewable energy compliance and related RECs.

On August 22, 2016, Chairman Little opened a docket for the Review, Modernization and Expansion of the Arizona REST Rules and Associated Rules[5].

On January 30, 2018, Commissioner Tobin filed a letter and proposed Energy Modernization Plan. On February 22, 2019, Staff filed a Notice of Inquiry ("NOI") to evaluate the proposals set forth in Commissioner Tobin's letter. On July 5, 2018, Commissioner Tobin filed a letter and proposed Clean REST ("CREST") rules.

On February 8, 2019, Commissioner Kennedy filed proposed modifications to the REST rules.

On April 17, 2019, Commissioner Olsen filed proposed modifications to the REST rules.

In the REST rules, specifically R14-2-1804(B), affected utilities are required to satisfy an annual renewable energy requirement up to 15 percent by 2024. Commissioners and stakeholders have expressed interest to increase the annual renewable energy requirement percentage. Staff has recognized the need to reassess the annual renewable energy requirement value.

Electric Energy Efficiency Standards Rules

In Commission Decision No. 71819 (August 10, 2010), the Commission adopted new Electric Energy Efficiency Standards ("EEE Standards") Rules[6] which required affected utilities[7] to achieve energy savings through cost-effective energy efficiency programs, in order to ensure

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[3] A.A.C. R14-2-1801 *et seq*.
[4] *See* A.A.C. R14-2-1801(A) "Affected Utility" means a public service corporation serving retail electric load in Arizona, but excluding any Utility Distribution Company with more than half of its customers located outside of Arizona.
[5] *See* Docket No. E-00000Q-16-0289.
[6] A.A.C. R14-2-2401 *et seq*.
[7] *See* R14-2-2401(2) "Affected utility" means a public service corporation that provides electric service to retail customers in Arizona.

reliable electric service at reasonable rates and costs. The EEE Standards Rules define the terms "energy efficiency"[8] and Demand-Side Management ("DSM") measure[9].

The EEE Standards Rules require an affected utility to achieve cumulative annual energy savings, measured in kWh, equivalent to a percentage of an affected utility's retail electric energy sales for a specific calendar year. For calendar year 2019, energy savings must equate to at least 22 percent of an affected utility's retail electric sales.

Gas Energy Efficiency Standards Rules

In Commission Decision No. 72042 (December 10, 2010), the Commission adopted new Gas Energy Efficiency Standards ("GEE Standards") Rules[10] which required affected utilities[11] to achieve therm or therm equivalent savings through DSM and Renewable Energy Resource Technology ("RET")[12] programs in order to ensure reliable gas service at reasonable rates and costs.

The GEE Standards Rules require an affected utility, through DSM and RET programs, to achieve cumulative annual energy savings, expressed as therms or therm equivalents, equal to at least 6 percent of the affected utility's retail gas energy sales for calendar year 2019.

Staff recognizes the need to update the GEE Standards Rules to consider calendar years past 2019. Staff believes it is necessary to repeal the GEE Standard Rules and expand the applicability of the EEE Standard Rules to consider Gas Utilities by means of an updated definition of an "affected utility".

Initial Proposed Draft Energy Rules

Staff recognizes the need to revisit and modify the Commission's various rules including:

- Modifications to the REST Rules such as integrating the REST Rules with the Resource Planning and Procurement Rules; establishing a future Renewable

[8] *See* A.A.C. R14-2-2401(17) "Energy efficiency" means the production or delivery of an equivalent level and quality of end use electric or gas service using less energy, or the conservation of energy by end-use customers.
[9] *See* A.A.C. R14-2-2401(13) "DSM measure" means any material, device, technology, educational program, pricing option, practice, or facility alteration designed to result in reduced peak demand, increased energy efficiency, or shifting of electricity consumption to off-peak periods and includes CHP used to displace space heating, water heating, or another load.
[10] A.A.C. R14-2-2501 *et seq*.
[11] *See* A.A.C. R14-2-2501(2) "Affected utility" means a public service corporation that provides gas utility service to retail customers in Arizona.
[12] *See* A.A.C. R14-2-2501(31) "RET" means a renewable energy resource technology application utilizing an energy resource that is replaced rapidly by a natural, ongoing process and that displaces conventional energy resources otherwise used to provide energy to an affected utility's Arizona customers.

Energy Goal; defining "Distributed Generation" eligible technologies; including the role of Forest Bioenergy and battery storage; and defining "Affected Utilities".

- Modifications to the EEE Standards Rules to consider calendar years past 2019 and to integrate the EEE Standard Rules with the Resource Planning and Procurement Rules with an expanded applicability Article.

- To update the GEE Standards Rules to consider calendar years past 2019 and to possibly repeal the GEE Standard Rules and expand the applicability of the EEE Standard Rules to consider Gas Utilities.

Net Metering Rules

In Commission Decision No. 70561 (October 23, 2008), the Commission adopted new Net Metering Rules[13] which govern the treatment of electric utility customers in Arizona who wish to interconnect with the electric utility which serves them and engage in Net Metering operation. As defined in A.A.C. R14-2-2302(K) "Net Metering" means service to an electric utility customer under which electric energy generated by or on behalf of that electric utility customer from a Net Metering facility and delivered to the utility's local distribution facilities may be used to offset electric energy provided by the electric utility to the electric utility customer during the applicable billing period.

Pursuant to Decision No. 75859 (January 3, 2017), on November 17, 2017 in Docket No. E-00000J-14-0023, Staff filed a report addressing the review and modification of the Net Metering Rules to comport with changes in circumstances since their adoption. Decision No. 75859 established a methodology to determine the value and cost of DG and approved an Export rate and tariff for new residential interconnected solar customers. On August 18, 2017, the Commission issued Decision No. 76295, which approved an export rate and tariff for new DG customers and grandfathering provision for existing DG customers in Arizona Public Service Company's ("APS") service territory. At the conclusion of Phase II proceedings for affected utilities with a Net Metering tariff, an export rate tariff was established.

For DG customers on an export tariff, the current Net Metering language is no longer applicable. Staff recommends amending the Net Metering Rules to address this issue.

Environmental Portfolio Standard

On May 4, 2000, in Decision No. 62506, the Commission adopted an Environmental Portfolio Standard ("EPS") and ordered Staff to commence the rulemaking process to adopt rules consistent with the EPS. On February 8, 2001, in Decision No. 63364, the Commission adopted the EPS Rules[14].

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[13] A.A.C R14-2-2301 *et seq.*
[14] *See* A.A.C R14-2-1618.

The EPS Rules require an LSE selling electricity or aggregating customer for the purpose of selling electricity to derive a specific percentage of the total retail energy sold from new solar resources or environmentally-friendly renewable electric technologies in a specific calendar year.

The adoption of the REST rules in Commission Decision No. 69127, effectively supersede the EPS Rules. Staff believes it is appropriate at this time to repeal the EPS rules.

ENERGY RELATED TOPICS

Baseload Security, the Statutory Biennial Transmission Assessment ("BTA"), and Technological Developments in Generation and Delivery of Energy will continue to be reviewed by Staff in the future. The Commission hosted a workshop on Battery Storage Technology on March 20, 2017 and a workshop on Baseload Security on November 9, 2017. Forest Bioenergy will be addressed in this section.

Forest Bioenergy

In May 2017, Commissioner Dunn opened Docket No. E-00000Q-l 7-0138 to explore the role of forest bioenergy in Arizona as a means to use the woody biomass generated from public lands to create energy for the grid. In Decision No. 76295, the Commission reiterated the Commission's interest in forest bioenergy, citing it as a carbon-neutral, renewable energy resource that is becoming increasingly important in Arizona by generating power, encouraging responsible forest management, and reducing the risk posed by wildfires.

In Decision No. 77090 (March 13, 2018) the Commission ordered that all affected utilities subject to the REST Rules immediately commence working with Commission Staff to develop a comprehensive plan for biomass generation to be considered as part of each Utility's REST Plan. On January 16, 2019 in Decision No. 77045, the Commission adopted a policy regarding the role of Forest Bioenergy in Arizona. The policy addresses a carve-out of 60 MW of biomass energy for regulated entities to pursue. Policy Statement No. 3 on Page 9 further states:

> *The carve-out should be equal or greater than 60 MW of biomass energy developed through renewables as defined by [A.A.C] R14-2-1802. The affected utilities, as defined by the REST rules, would be required to acquire their appropriate share of the 60 MW total as determined by a one-time allocation by the Affected Utilities.*

Staff recognizes the need to update the REST rules to address the role of Bioenergy in Arizona.

RENEWABLE PORTFOLIO STANDARD POLICIES NATIONWIDE

Across the United States, Renewable Portfolio Standard ("RPS") policies and associated requirements continue to play a central role in supporting renewable energy growth.

Arizona regulated utilities have generally met their interim REST targets in recent years, with only a few exceptions reflecting unique utility constraints. In 2017, REST compliance costs for all Arizona LSEs, excluding Arizona Electric Power Cooperative, Inc. ("AEPCO"), totaled $167,883,878. In contrast to the United States, RPS compliance costs totaled $4.1 billion in 2017, which equates to 2.0 percent of average retail electricity bills in RPS states.

State Assessment: RPS Policies

As of 2018, RPS Policies exist in 29 States and Washington, District of Columbia. Furthermore, 16 States plus Washington, District of Columbia have solar energy or DG carve-outs. In its assessment on the Commission's Energy Rules, Staff has reviewed States with recent updates in its RPS Policies. These include California, Connecticut, Massachusetts, New Jersey, New Mexico, New York, and Oregon.

State-Specific RPS compliance costs vary from state to state due to differences in:

- RPS target levels;
- Resource tiering/mix;
- Local Renewable Energy costs/characteristics;
- Renewable Energy Certificate prices;
- Balance between short/long term procurement instruments;
- Wholesale electricity prices; and
- State-specific cost calculation methods.

For every State, refining resource eligibility rules was a key provision; particularly for energy resources such as hydro and biomass. In 2018, California increased its RPS to 60 percent by 2030 and added goal of 100 percent zero-carbon electricity by 2045. Connecticut increased and extended Class I target to 40 percent by 2030 and created a new long-term contracting program. Massachusetts increased Class I growth rate to two percent of retail sales per year over 2020-2029 period and added a clean peak standard. New Jersey increased and extended Tier I target to 50 percent by 2030, phases out solar carve-out, increased offshore wind energy carve-out to 3,500 MW, and created new caps on RPS compliance cost. New York created offshore wind procurement program with a target of 2,400 MW by 2030. In 2016 Oregon RPS requirement to 50 percent by 2040.

As of 2017, 38 States and the District of Columbia have mandatory Net Metering rules. As of 2017, 20 States have mandatory statewide Energy Efficiency Resource Standards and 8 other States have Goals.

GUIDING PRINCIPALS FOR ENERGY RULES INTEGRATION

In Staff's proposed draft of the Commission's Energy Rules, the following guiding principals have been established, in no particular order of importance, to provide foundation based on the aforementioned discussion:

I. The Commission's Energy Rules should apply to each affected utility with special consideration towards not-for-profit utilities.

II. Affected utilities should utilize the most cost-effective energy resources to meet annual peak and energy demand.

III. Affected utilities should effectively engage with Staff, customers, and the public on relevant IRP action.

IV. Stakeholders and the public should have a clear opportunity to participate in the IRP process.

V. Affected utilities should have sufficient flexibility in their proposed plans to respond to resource procurement prices and changing market conditions.

VI. Affected utilities IRP's should promote renewable energy technologies, reduce green house gas emissions and reduce water consumption.

APPENDICES

It is necessary to modify the Commission's Energy Rules. Staff's initial proposal contains integrated Resource Planning and Procurement Rules, REST Rules and EEE Standards Rules. Appendix A, B and C are attached hereto.

Appendix A

Appendix A is the proposed text of Staff's recommended integration of the Commission's Energy Rules. Furthermore, Staff has proposed modifications to the Net Metering Rules and proposed a repeal of the Environmental Portfolio Standard.

Appendix B

Appendix B is a red-lined version of the Commission's Rules. Included in the redlined version are the Rules on Resource Planning and Procurement, REST, and EEE Standards and GEE Standards.

Appendix C

Appendix C is a summary of the written comments that the Commission received on possible modifications to the Commission's Energy Rules. Written comments have been summarized in Docket No. RU-00000A-18-0284 from February 25, 2019 to April 17, 2019. Written comments have been summarized in Docket No. E-00000Q-17-0138 from November 28, 2018 to April 17, 2019.

Appendix D

Appendix D is a list of affected Dockets.

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION

FIXED UTILITIES

ARTICLE 27. ENERGY RULES

Section

ARTICLE 27. ENERGY RULES

R14-2-2701. Definitions

In this Article, unless otherwise specified:

1. "Acknowledgement" means a Commission determination that a load-serving entity's IRP meets the requirements of this Article.
2. "Action Plan" means a plan that includes the information described in R14-2-2704(H).
3. "Affected Utility" means a public service corporation under Arizona Constitution, Article 15, § 2, providing gas or electric service to the public.
4. "Affiliated" means related through ownership of voting securities, through contract, or otherwise in such a manner that one entity directly or indirectly controls another, is directly or indirectly controlled by another, or is under direct or indirect common control with another entity.
5. "Benchmark" means to calibrate against a known set of values or standards.
6. "Book life" means the expected time period over which a power supply source will be available for use by an Affected Utility.
7. "Btu" means British thermal unit.
8. "Capacity" means the amount of electric power, measured in megawatts, that a power source is rated to provide.
9. "Capital costs" means the construction and installation cost of facilities, including land, land rights, structures, and equipment.
10. "Clean Energy Resource" means an energy resource that operates with zero net emissions beyond that of steam as described in R14-2-2705(D).
11. "Clean Peak Goal" means the percentage of annual retail electricity sales during the time of peak demand that an Affected Utility must derive from Clean Energy Resources.
12. "Coincident peak" means the maximum of the sum of two or more demands that occur in the same demand interval, which demand interval may be established on an annual, monthly, or hourly basis.
13. "Commission" means the Arizona Corporation Commission.
14. "Conventional Energy Resource" means an energy resource that is non-renewable in nature, such as natural gas, coal, and oil, or electricity that is produced with energy resources that are not Renewable Energy Resources or Clean Energy Resources.

15. "Cooperative" means an Affected Utility that is:
    a. Not operated for profit;
    b. Owned and controlled by its members; and
    c. Operating as a public service company in this state.
16. "Cost-effective" means that total incremental benefits from a DSM measure exceed total incremental costs over the life of the DSM measure.
17. "Customer" means the person or entity in whose name service is rendered to a single contiguous field, location, or facility, regardless of the number of meters at the field, location, or facility
18. "Customer Class" means a subset of customers categorized according to similar characteristics, such as amount of energy consumed; amount of demand placed on the energy supply system at the system peak; hourly, daily, or seasonal load pattern; primary type of activity engaged in by the customer, including residential, commercial, industrial, agricultural, and governmental; and location.
19. "Decommissioning" means the process of safely and economically removing a generating unit from service.
20. "Demand-Side Management" or "DSM" means the beneficial reduction in the total cost of meeting electric energy service needs by reducing or shifting in time electricity usage.
21. "Demand Response" means modification of customers' electricity consumption patterns, affecting the timing or quantity of customer demand and usage, achieved through intentional actions taken by an affected utility or customer because of changes in prices, market conditions, or threats to system reliability.
22. "DSM Measure" means any material, device, technology, educational program, pricing option, practice, or facility alteration designed to result in reduced peak demand, increased energy efficiency, or shifting of electricity consumption to off-peak periods.
23. "DSM Program" means one or more DSM measures provided as part of a single offering to customers.
24. "Derating" means a reduction in a generating unit's capacity.
25. "Discount Rate" means the interest rate used to calculate the present value of a cost.
26. "Distributed Generation" means any type of electrical generator on the customer's side of the meter, for use by the customer.

27. "Electric Utility" means a public service corporation providing electric service to the public.
28. "Emergency" means an unforeseen and unforeseeable condition that:
    a. Does not arise from an Affected Utility's failure to engage in good utility practices,
    b. Is temporary in nature, and
    c. Threatens reliability or poses another significant risk to the system.
29. "End Use" means the final application of electric energy, for activities such as, but not limited to, heating, cooling, running an appliance or motor, an industrial process, or lighting.
30. "Energy Efficiency" means the production or delivery of an equivalent level and quality of end-use electric or gas service using less energy, or the conservation of energy by end-use customers.
31. "Environmental Benefits" means avoidance of costs for compliance, or reduction in environmental impacts, for things such as, but not limited to:
    a. Water use and water contamination,
    b. Monitoring storage and disposal of solid waste such as coal ash (bottom and fly),
    c. Health effects from burning fossil fuels, and
    d. Emissions from transportation and production of fuels and electricity.
32. "Energy losses" means the quantity of electric energy generated or purchased that is not available for sale to end users, for resale, or for use by an Affected Utility.
33. "Escalation" means the change in costs due to inflation, changes in manufacturing processes, changes in availability of labor or materials, or other factors.
34. "Forest Biomass" means the organic material from trees and woody plants that are by-products of forest management, ecosystem restoration, or hazardous fuel reduction treatments on forest land.
35. "Gas" means either natural gas or propane.
36. "Gas Utility" means a public service corporation providing gas services to the public.
37. "Generating unit" means a specific device or set of devices that converts one form of energy into electric energy.
38. "Good Utility Practice" means any of the practices, methods, and acts that, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimal practice,

method, or act to the exclusion of all others, but rather to include practices, methods, or acts generally accepted in the region at the relevant time.

39. "Heat rate" means a measure of generating station thermal efficiency expressed in Btu per net kWh and computed by dividing the total Btu content of fuel used for electric generation by the total kWh of electricity generated.
40. "Incremental benefits" means amounts saved through avoiding costs for fuel, purchased power, new capacity, transmission, distribution, and other cost items necessary to provide electric or gas utility service, along with other improvements in societal welfare, such as through avoided environmental impacts.
41. "Incremental costs" means the additional expenses of a DSM measure, relative to the level of electricity or gas demand, electricity or gas consumption, and associated expenses estimated to occur in the absence of a specific DSM program.
42. "Independent Monitor" means an entity that is not affiliated with a load-serving entity and that is selected to oversee the conduct of a competitive procurement process under R14-2-2708.
43. "Integrated Resource Plan" or "IRP" means a load-serving entity's 15-year resource plan to meet forecasted annual peak and energy demand through a combination of supply-side and demand-side resources over a specified period of time as described in this Article.
44. "Integration" means methods by which energy produced by intermittent resources can be incorporated into the electric grid.
45. "Intermittent resources" means electric power generation for which the energy production varies in response to naturally occurring processes like wind or solar intensity.
46. "Interruptible power" means power made available under an agreement that permits curtailment or cessation of delivery by the supplier.
47. "In-service date" means the date a power supply source becomes available for use by a load-serving entity.
48. "Kilowatt-hour" or "kWh" means the electric energy equivalent to the amount of electric energy delivered in one hour when delivery is at a constant rate of one kilowatt.
49. "Limited-income customer" means a customer with below average level of household income, as defined in an Affected Utility's Commission-approved DSM program description.

50. "Load management" means actions taken or sponsored by an affected utility to reduce peak demands or improve system operating efficiency, such as direct control of customer demands through affected-utility-initiated interruption or cycling, thermal storage, or educational campaigns to encourage customers to shift loads.
51. "Load-serving entity" means an Affected Utility that provides electricity generation service and operates or owns, in whole or in part, a generating facility or facilities with capacity of at least 50 megawatts combined.
52. "Long-term" means having a duration of three or more years.
53. "Maintenance" means the repair of generation, transmission, distribution, administrative, and general facilities; replacement of minor items; and installation of materials to preserve the efficiency and working condition of facilities.
54. "Mothballing" means the temporary removal of a generating unit from active service and accompanying storage activities.
55. "Operate" means to manage or otherwise be responsible for the production of electricity by a generating facility, whether that facility is owned by the operator, in whole or in part, or by another entity.
56. "Probabilistic analysis" means a systematic evaluation of the effect, on costs, reliability, or other measures of performance, of possible events affecting factors that influence performance, considering the likelihood that the events will occur.
57. "Production cost" means the variable operating costs and maintenance costs of producing electricity through generation plus the cost of purchases of power sufficient to meet demand.
58. "Refurbish" means to make major changes, more extensive than maintenance or repair, in the power production, transmission, or distribution characteristics of a component of the power supply system, such as by changing the fuels that can be used in a generating unit or changing the capacity of a generating unit.
59. "Reliability" means a measure of the ability of a load-serving entity's generation, transmission, or distribution system to provide power without failures to reflect the portion of time that a system is unable to meet demand or the kilowatt-hours of demand that could not be supplied.
60. "Renewable Energy Goal" means the portion of an Affected Utility's annual retail electricity sales that must come from Renewable Energy Resources.

61. "Renewable Energy Resource" means an energy resource that is replaced rapidly by a natural, ongoing process as described in R14-2-2705(A).
62. "Reserve requirements" means the capacity that a load-serving entity must maintain in excess of its peak load to provide for scheduled maintenance, forced outages, unforeseen loads, emergencies, system operating requirements, and reserve sharing arrangements.
63. "Reserve sharing arrangement" means an agreement between two or more load-serving entities to provide backup capacity.
64. "RFP" means request for proposal.
65. "Self-generation" means the production of electricity by an end user.
66. "Sensitivity analysis" means a systematic assessment of the degree of response of costs, reliability, or other measures of performance to changes in assumptions about factors that influence performance.
67. "Short-term" means having a duration of less than three years.
68. "Spinning reserve" means the capacity a load-serving entity must maintain connected to the system and ready to deliver power promptly in the event of an unexpected loss of generation source, expressed as a percentage of peak load, ~~as~~ a percentage of the largest generating unit, or- in fixed megawatts.
69. "Staff" means individuals working for the Commission, whether as employees or through contract.
70. "Storage Battery" means an assembly of identical cells in which the electrochemical action is reversible so that the battery may be recharged by passing a current through the cells in the opposite direction to that of discharge. While many non-storage batteries have a reversible process, only those that are economically rechargeable are classified as storage batteries.
71. "Storage Cell" means an electrolytic cell for the generation of electric energy in which the cell after being discharged may be restored to a charged condition by an electric current flowing in a direction opposite the flow of current when the cell discharges.
72. "Total cost" means all capital, operating, maintenance, fuel, and decommissioning costs, plus the costs associated with mitigating any adverse environmental effects, incurred by an end user, an Affected Utility, or the public, in the provision or conservation of electric energy.

R14-2-2702. Applicability

A. This Article applies to each Affected Utility, whether the power generated is for sale to end users or is for resale.

B. An electricity public service corporation that becomes a load-serving entity by increasing its generating capacity to at least 50 megawatts combined shall provide written notice to the Commission within 30 days after the increase and shall comply with the filing requirements in this Article within two years after the notice is filed.

R14-2-2703. Energy Implementation Plan

A. An Affected Utility shall, by April 1 every third year, file with Docket Control an Energy Implementation Plan which describes how the Affected Utility will comply with the following:

1. Each Affected Utility shall be required to satisfy a Renewable Energy Goal of at least 40% of its retail kWh sales to be derived from Renewable Energy Resources by 2035.
2. Each Affected Utility shall establish a Clean Peak Goal which requires at least 15% of its retail kWh sales during the time of peak demand to be derived from Clean Energy Resources by 2035.

B. Each Affected Utility shall include in its Energy Implementation Plan the following information:

1. A Renewable Energy Goal and a Clean Peak Goal proposed for the following three calendar years;
2. The actual kWh of energy or equivalent obtained from Renewable Energy Resources and Clean Energy Resources;
3. The kWh of energy or equivalent obtained from Renewable Energy Resources and Clean Energy Resources normalized to reflect a full year's production;
4. The kW of generation capacity, disaggregated by technology type;
5. Cost information regarding cents per actual kWh of energy obtained from Renewable Energy Resources and cents per kW of generation capacity, disaggregated by technology type; and
6. A description of the Affected Utility's procedures for choosing Renewable Energy Resources and a certification from an independent auditor that those procedures are fair and unbiased and have been appropriately applied.
7. Cost information regarding cents per actual kWh of energy obtained from Clean Energy Resources and cents per kW of generation capacity, disaggregated by technology type; and

8. A description of the Affected Utility's procedures for choosing Clean Energy Resources and a certification from an independent auditor that those procedures are fair and unbiased and have been appropriately applied.
9. A description of the Renewable Energy Resources and Clean Energy Resources, identified by technology, proposed to be added by year for the next three calendar years and a description of the kW and kWh to be obtained from each of those resources including:
   a. The estimated cost of each Renewable Energy Resource proposed to be added, including cost per kWh and total cost per year;
   b. The estimated cost of each Clean Energy Resource proposed to be added, including cost per kWh and total cost per year;
   c. A description of the method by which each Renewable Energy Resource is to be obtained, such as self-build, customer installation, or request for proposals; and
   d. A description of the method by which each Clean Energy Resource is to be obtained, such as self-build, customer installation, or request for proposals.
10. A description of the kWh to be sold from Clean Energy Resources during the time of peak demand

C. An Affected Utility must demonstrate the delivery of energy from Renewable Energy Resources to their retail consumers such as by providing proof that the necessary transmission rights were reserved and utilized to deliver energy from Renewable Energy Resources to the Affected Utility's system, if transmission is required, or that the appropriate control area operators scheduled the energy from Renewable Energy Resources for delivery to the Affected Utility's system.

D. Each Affected Utility shall include in its Energy Implementation Plan a plan to acquire power from the use of a Forest Biomass Electric Generator(s).

E. Each Affected Utility shall collaborate to achieve a statewide aggregate goal of 60 MW from the use of a Forest Biomass Electric Generator(s) by 2035.

F. Each Affected Utility may submit to the Commission for review and approval a tariff which provides an incentive for Energy Storage Systems as described in R14-2-2705(A)(16) subject to R14-2-2713.

G. Staff may request that an Affected Utility complete additional analyses to improve specified components of the Affected Utility's submissions.

R14-2-2704. Load Serving Entity's Integrated Resource Plan

A. A load-serving entity shall, by April 1 of each year, file with Docket Control a report that shall include the following items of demand-side data, including for each item for which no record is maintained the load-serving entity's best estimate and a full description of how the estimate was made:

1. Hourly demand for the previous calendar year, disaggregated by:
   a. Sales to end users;
   b. Sales for resale;
   c. Energy losses; and
   d. Other disposition of energy, such as energy furnished without charge and energy used by the load-serving entity;
2. Coincident peak demand (megawatts) and energy consumption (megawatt-hours) by month for the previous 10 years, disaggregated by customer class;
3. Number of customers by customer class for each of the previous 10 years; and
4. Reduction in load (kilowatt and kilowatt-hours) in the previous calendar year due to existing demand management measures, by type of demand management measure.

B. A load-serving entity shall, by April 1 of each year, file with Docket Control a report that shall include the following items of supply-side data, including for each item for which no record is maintained the load-serving entity's best estimate and a full description of how the estimate was made:

1. For each generating unit and purchased power contract for the previous calendar year:
   a. In-service date and book life or contract period;
   b. Type of generating unit or contract;
   c. The Affected Utility's share of the generating unit's capacity, or of capacity under the contract, in megawatts;
   d. Maximum generating unit or contract capacity, by hour, day, or month, if such capacity varies during the year;
   e. Annual capacity factor (generating units only);
   f. Average heat rate of generating units and, if available, heat rates at selected output levels;
   g. Average fuel cost for generating units, in dollars per million Btu for each type of fuel;
   h. Other variable operating and maintenance costs for generating units, in dollars per megawatt hour;

i. Purchased power energy costs for long-term contracts, in dollars per megawatt-hour;

j. Fixed operating and maintenance costs of generating units, in dollars per megawatt;

k. Demand charges for purchased power;

l. Fuel type for each generating unit;

m. Minimum capacity at which the generating unit would be run or power must be purchased;

n. Whether, under standard operating procedures, the generating unit must be run if it is available to run;

o. Description of each generating unit as base load, intermediate, or peaking;

p. Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation;

q. Water consumption quantities and rates; and

r. Tons of coal ash produced per generating unit;

2. For the power supply system for the previous calendar year:

a. A description of generating unit commitment procedures;

b. Production cost;

c. Reserve requirements;

d. Spinning reserve;

e. Reliability of generating, transmission, and distribution systems;

f. Purchase and sale prices, averaged by month, for the aggregate of all purchases and sales related to short-term contracts; and

g. Energy losses;

3. The level of self-generation in the load-serving entity's service area for the previous calendar year; and

4. An explanation of any resource procurement processes used by the load-serving entity during the previous calendar year that did not include use of an RFP, including the exception under which the process was used.

C. A load-serving entity shall, by April 1 every third year, file with Docket Control a compilation of the following items of load data and analyses, which may include a reference to the last filing made under this subsection for each item for which there has been no change in forecast since the last filing:

1. Fifteen-year forecast of system coincident peak load (megawatts) and energy consumption (megawatt-hours) by month and year, expressed separately for residential, commercial, industrial, and other customer classes; for interruptible power; for resale; and for energy losses;
2. Disaggregation of the load forecast into a component in which no additional demand management measures are assumed, and a component assuming the change in load due to additional forecasted demand management measures; and
3. Documentation of all sources of data, analyses, methods, and assumptions used in making the load forecasts, including a description of how the forecasts were benchmarked and justifications for selecting the methods and assumptions used.

D. A load-serving entity shall, by April 1 every third year, file with Docket Control the following prospective analyses and plans, which shall compare a wide range of resource options and take into consideration expected duty cycles, cost projections, other analyses required under this Section, environmental impacts, and water consumption and may include a reference to the last filing made under this subsection for each item for which there has been no change since the last filing:

1. An IRP, providing for each year:
    a. Projected data for each of the items listed in subsection (B)(1), for each generating unit and purchased power source, including each generating unit that is expected to be new or refurbished during the period, which shall be designated as new or refurbished, as applicable, for the year of purchase or the period of refurbishment;
    b. Projected data for each of the items listed in subsection (B)(2), for the power supply system;
    c. The capital cost, construction time, and construction spending schedule for each generating unit expected to be new or refurbished during the period;
    d. The escalation levels assumed for each component of cost, such as, but not limited to, operating and maintenance, environmental compliance, system integration, backup capacity, and transmission delivery, for each generating unit and purchased power source;
    e. If discontinuation, decommissioning, or mothballing of any power source or permanent derating of any generating facility is expected:

i. Identification of each power source or generating unit involved;

ii. The costs and spending schedule for each discontinuation, decommissioning, mothballing, or derating; and

iii. The reasons for each discontinuation, decommissioning, mothballing, or derating;

f. The capital costs and operating and maintenance costs of all new or refurbished transmission and distribution facilities expected during the 15-year period;

g. An explanation of the need for and purpose of all expected new or refurbished transmission and distribution facilities, which explanation shall incorporate the load-serving entity's most recent transmission plan filed under A.R.S. § 40-360.02(A) and any relevant provisions of the Commission's most recent Biennial Transmission Assessment decision regarding the adequacy of transmission facilities in Arizona; and

h. Cost analyses and cost projections;

2. Documentation of the data, assumptions, and methods or models used to forecast production costs and power production for the IRP, including the method by which the forecast was benchmarked;

3. A description of each potential power source that was rejected; the capital costs, operating costs, and maintenance costs of each rejected source; and an explanation of the reasons for rejecting each source;

4. A 15-year forecast of self-generation by customers of the load-serving entity, in terms of annual peak production (megawatts) and annual energy production (megawatt-hours).;

5. Disaggregation of the forecast of subsection (D)(4) into two components, one reflecting the self-generation projected if no additional efforts are made to encourage self-generation, and one reflecting the self-generation projected to result from the load-serving entity's institution of additional forecasted self-generation measures;

6. A 15-year forecast of the annual capital costs and operating and maintenance costs of the self-generation identified under subsections (D)(4) and (D)(5);

7. Documentation of the analysis of the self-generation under subsections (D)(4) through (6);

8. An IRP that considers using a wide range of resources and promotes fuel and technology diversity within its portfolio;

9. A calculation of the benefits of generation using Renewable Energy Resources;

10. A plan that factors in the delivered cost of all resource options, including costs associated with environmental compliance, system integration, backup capacity, and transmission delivery;
11. Analysis of integration costs for intermittent resources;
12. A plan to increase the efficiency of the load-serving entity's generation using fossil fuel;
13. Data to support technology choices for supply-side resources;

E. A load-serving entity shall, by April 1 every third year, file with Docket Control a compilation of the following analyses and plan:

1. Analyses to identify and assess errors, risks, and uncertainties in the following, completed using methods such as sensitivity analysis and probabilistic analysis:
   a. Demand forecasts;
   b. The costs of demand management measures and power supply;
   c. The availability of sources of power;
   d. The costs of compliance with existing and expected environmental regulations;
   e. Any analysis by the load-serving entity in anticipation of potential new or enhanced environmental regulations;
   f. Changes in fuel prices, and availability;
   g. Construction costs, capital costs, and operating costs; and
   h. Other factors the load-serving entity wishes to consider.
2. A description and analysis of available means for managing the errors, risks, and uncertainties identified and analyzed in subsection (E)(1), such as obtaining additional information, limiting risk exposure, using incentives, creating additional options, incorporating flexibility, and participating in regional generation and transmission projects; and
3. A plan to manage the errors, risks, and uncertainties identified and analyzed in subsection (E)(1).

F. A load-serving entity shall, by April 1 every third year, file with Docket Control an IRP that:

1. Selects a portfolio of resources based upon comprehensive consideration of a wide range of supply- and demand-side options;
2. Will result in the load-serving entity's reliably serving the demand for electric energy services;
3. Will address the adverse environmental impacts of power production;
4. Will address water consumption impacts of power production; and
5. Will include the Energy Implementation Plan in accordance with R14-2-2703.

6. Will include a report in accordance with R14-2-2706;
7. Will effectively manage the uncertainty and risks associated with costs, environmental impacts, load forecasts, and other factors;
8. Will achieve a reasonable long-term total cost, taking into consideration the objectives set forth in subsections (F)(2)-(7) and the uncertainty of future costs; and
9. Contains all of the following:
   a. A complete description and documentation of the plan, including supply and demand conditions, availability of transmission, costs, and discount rates utilized;
   b. A comprehensive, self-explanatory load and resources table summarizing the plan;
   c. A brief executive summary;
   d. An index to indicate where the responses to each filing requirement of these rules can be found; and
   e. Definitions of the terms used in the plan.

G. A load-serving entity shall, by April 1 of each odd year, file with Docket Control a work plan that includes:

1. An outline of the contents of the IRP that the load-serving entity is developing to be filed the following year as required under subsections (D), (E) and (F);
2. The load-serving entity's method for assessing potential resources;
3. The sources of the load-serving entity's current assumptions; and
4. An outline of the timing and extent of public participation and advisory group meetings the load-serving entity intends to hold before completing and filing the IRP.

H. Within its IRP, a load-serving entity shall include an action plan, based on the results of the resource planning process, that:

1. Includes a summary of actions to be taken on future resource acquisitions;
2. Includes details on resource types, resources capacity, resource costs and resource timing; and
3. Covers the three-year period following the Commission's order of the resource plan.

I. If a load-serving entity's submission does not contain sufficient information to allow Staff to analyze the submission fully for compliance with this Article, Staff shall request additional information from the load-serving entity, including the data used in the load-serving entity's analyses.

J. Staff may request that a load-serving entity complete additional analyses to improve specified components of the load-serving entity's submissions.

K. If a load-serving entity believes that a data-reporting requirement may result in disclosure of confidential business data or confidential electricity infrastructure information, the load-serving entity may submit to Staff a request that the data be submitted to Staff under a confidentiality agreement, which request shall include an explanation justifying the confidential treatment of the data.

L. Data protected by a confidentiality agreement shall not be submitted to the Commission and will not be open to public inspection or otherwise made public except upon an order of the Commission entered after written notice to the load-serving entity.

R14-2-2705. Energy Resources

A. Renewable Energy Resources are applications of the following defined technologies that displace Conventional Energy Resources that would otherwise be used to provide electricity to a customer:

1. "Biogas Electric Generator" is a generator that produces electricity from gases that are derived from plant-derived organic matter, agricultural food and feed matter, wood wastes, aquatic plants, animal wastes, vegetative wastes, or wastewater treatment facilities using anaerobic digestion or from municipal solid waste through a digester process, an oxidation process, or other gasification process.
2. "Forest Biomass Electric Generator" is a generator using forest biomass as a fuel source that generates electricity.
3. "Biopower Electric Generator" is a generator that uses any raw or processed plant-derived organic matter available on a renewable basis, including: agricultural food a feed crops; agricultural food and feed crops; agricultural crop wastes and residues; wood wastes and residues, including landscape waste, right-of-way tree trimmings, or small diameter forest thinnings that are 12" in diameter or less; dead and downed forest products; aquatic plants; animal wastes; other vegetative waste materials; non-hazardous plant matter waste material that is segregated from other waste; forest-related resources, such as harvesting and mill residue, pre-commercial thinnings, slash, and brush; miscellaneous waste, such as waste pellets, crates, and dunnage; and recycled paper fibers that are no longer suitable for recycled paper production.
4. "Distributed Solar Electric Generator" means electric generation sited at a customer premises, providing electric energy from solar electric resources to the customer load on that site or providing

wholesale capacity and energy to the local Utility Distribution Company for use by multiple customers in contiguous distribution substation service areas.

5. "Existing Hydropower Facilities" are hydropower generators that were in existence prior to 1997.
6. "Fuel Cells that Use Only Renewable Fuels" are fuel cell electricity generators that operate on renewable fuels, such as hydrogen created from water by Eligible Renewable Energy Resources. Hydrogen created from non-Renewable Energy Resources, such as natural gas or petroleum products, is not a renewable fuel.
7. "Geothermal Generator" is an electricity generator that uses heat from within the earth's surface to produce electricity.
8. "Hybrid Wind and Solar Electric Generator" is a system in which a Wind Generator and a solar electric generator are combined to provide electricity.
9. "Landfill Gas Generator" is an electricity generator that uses methane gas obtained from landfills to produce electricity.
10. "New Hydropower Generator" is a generator, installed after January 1, 2006.
11. "Solar Electricity Resources" use sunlight to produce electricity by either photovoltaic devices or solar thermal electric resources.
12. "Wind Generator" is a mechanical device that is driven by wind to produce electricity.
13. "Commercial Solar Pool Heaters" are devices that use solar energy to heat commercial or municipal swimming pools.
14. "Geothermal Space Heating and Process Heating Systems" are systems that use heat from within the earth's surface for space heating or for process heating.
15. "Renewable Combined Heat and Power System" is a Distributed Generation system, fueled by an Renewable Energy Resource, that produces both electricity and useful renewable process heat.
16. "Energy Storage System" is a system that utilizes storage battery or storage cell technology that is charged with Renewable Energy Resources.
17 "Solar Daylighting" is the non-residential application of a device specifically designed to capture and redirect the visible portion of the solar beam, while controlling the infrared portion, for use in illuminating interior building spaces in lieu of artificial lighting.
18. "Solar Heating, Ventilation, and Air Conditioning" ("HVAC") is the combination of Solar Space Cooling and Solar Space Heating as part of one system.

19. "Solar Industrial Process Heating and Cooling" is the use of solar thermal energy for industrial or commercial manufacturing or processing applications.
20. "Solar Space Cooling" is a technology that uses solar thermal energy absent the generation of electricity to drive a refrigeration machine that provides for space cooling in a building.
21. "Solar Space Heating" is a method whereby a mechanical system is used to collect solar energy to provide space heating for buildings.
22. "Solar Water Heater" is a device that uses solar energy rather than electricity or fossil fuel to heat water for residential, commercial, or industrial purposes.

B. Except as provided in subsection (A)(5), Renewable Energy Resources shall not include facilities installed before January 1, 1997.

C. The Commission may adopt pilot programs in which additional technologies are established as Renewable Energy Resources. Any such additional technologies shall be Renewable Energy Resources that produce electricity, replace electricity generated by Conventional Energy Resources, or replace the use of fossil fuels with Renewable Energy Resources. Energy conservation products, energy management products, energy efficiency products, or products that use non-renewable fuels shall not be eligible for these pilot programs.

D. Clean Energy Resources are applications of the following defined technologies that are Clean Energy Resources:

1. Renewable Energy Resources.
2. "Fuel Cells that Use Only Clean Fuels" are fuel cell electricity generators that operate with zero net emissions beyond that of steam, such as hydrogen created from water by Eligible Renewable Energy Resources or Eligible Clean Energy Resources. Hydrogen created from non-Clean Energy Resources, such as natural gas or petroleum products, is not a zero net emission fuel.
3. "Nuclear Power Generators" are generators located in Arizona that produce electricity using nuclear fusion or fission, including, without limitation, pressurized water reactors, small modular reactors, molten salt reactors, liquid metal reactors, magnetic confinement reactors, inertial confinement reactors, and other reactor types.

R14-2-2706. Energy Efficiency

A. An Affected Utility may file with the Commission a report with a description of the demand management programs or measures used towards energy efficiency initiatives.

B. An Affected Utility may, by April 1 every third year, submit to Docket Control, in a Commission-established docket for that year, a DSM progress report providing information for each of the affected utility's DSM programs and including at least the following:

1. A list of the affected utility's current DSM programs and DSM measures, organized by customer segment;
2. A description of the findings from any research projects completed during the previous three calendar years; and
3. The following information for each DSM program or DSM measure:
   a. A brief description;
   b. Goals, objectives, and savings targets;
   c. The level of customer participation during the previous three calendar years;
   d. The costs incurred during the previous three calendar years, disaggregated by type of cost, such as administrative costs, rebates, and monitoring costs;
   e. A description and the results of evaluation and monitoring activities during the previous three calendar years;
   f. Savings realized in kW, kWh, therms, and BTUs, as appropriate;
   g. The environmental benefits realized, including reduced emissions and water savings;
   h. Incremental benefits and net benefits, in dollars;
   i. Performance-incentive calculations for the previous three calendar years;
   j. Problems encountered during the previous three calendar years and proposed solutions;
   k. A description of any modifications proposed for the following three calendar years; and
   l. Whether the affected utility proposes to terminate the DSM program or DSM measure and the proposed date of termination.

C. An Affected Utility shall provide an opportunity for all affected utility customer segments to participate, and allocate a portion of DSM resources specifically to limited-income customers.

D. An Affected Utility shall design each DSM program:

1. To be cost-effective, and
2. To accomplish at least one of the following:
   a. Energy efficiency,
   b. Load management, or

c. Demand response.

E. An Affected Utility shall consider the following when planning and implementing a DSM program:

1. Whether the DSM program will achieve cost-effective energy savings and peak demand reductions;
2. Whether the DSM program will advance market transformation and achieve sustainable savings, reducing the need for future market interventions;
3. Whether the Affected Utility can ensure a level of funding adequate to sustain the DSM program and allow the DSM program to achieve its targeted goal; and
4. May allocate a portion of DSM resources specifically to limited-income customers.

F. An Affected Utility may recover the costs that it incurs in planning, designing, implementing, and evaluating a DSM program or DSM measure if the Commission approves such cost recovery for the Affected Utility in a rate case.

G. Ratepayer-funded DSM shall be developed and implemented in a fuel-neutral manner.

H. An affected utility shall use DSM funds collected from electric customers for electric DSM programs, unless otherwise ordered by the Commission.

I. An affected utility shall use DSM funds collected from gas customers for gas DSM programs, unless otherwise ordered by the Commission.

J. An affected utility may use DSM funds collected from electric or gas customers for thermal envelope improvements.

K. An Affected Utility shall monitor and evaluate each DSM program and DSM measure to determine whether the DSM program or DSM measure is cost-effective and otherwise meets expectations.

L. Staff may request an Affected Utility to perform analyses of specified DSM programs and measures to comply with this Article.

R14-2-2707. Commission Review, Acknowledgment and Approval

A. Within 180 days following an Affected Utility filing its Energy Implementation Plan, Staff shall file a report that contains its analysis and conclusions regarding an Affected Utility's Energy Implementation Plan.

B. The Commission may hold a hearing for review and approval of Staff's analysis and conclusions regarding an Affected Utility's Energy Implementation Plan.

C. Within 180 days following a load-serving entity's IRP, Staff shall file a report that contains its analysis and conclusions regarding its statewide review and assessments of the load-serving entity's IRP.

D. Within 120 days following subsection (C), the Commission shall issue an order for the load-serving entities' IRPs which shall include:

1. An order of acknowledgement stating the reasons acknowledgment with or without amendment, if the Commission determines that the IRP, as amended if applicable, complies with the requirements of this Article and that the load-serving entity's IRP is reasonable and in the public interest, based on the information available to the Commission at the time and considering the following factors:
   a. The total cost of electric energy services;
   b. The degree to which the factors that affect demand, including demand management, have been taken into account;
   c. The degree to which supply alternatives, such as self-generation, have been taken into account;
   d. Uncertainty in demand and supply analyses, forecasts, and plans, and whether plans are sufficiently flexible to enable the load-serving entity to respond to unforeseen changes in supply and demand factors;
   e. The reliability of power supplies, including fuel diversity and non-cost considerations;
   f. The reliability of the transmission grid;
   g. The degree to which the load-serving entity considered all relevant resources, risks, and uncertainties;
   h. The degree to which the load-serving entity's plan for future resources is in the best interest of its customers;
   i. The best combination of expected costs and associated risks for the load-serving entity and its customers; and
   j. The degree to which the load-serving entity's resource plan allows for coordinated efforts with other load-serving entities; or
2. An order of no acknowledgement stating the reason for no acknowledgement;
3. An order of approval of the load-serving entity's Action Plan stating the reason for approval; or
4. An order of no approval of the load-serving entity's Action Plan stating the reason for no approval.

E. The Commission may hold a hearing or workshop regarding a load-serving entity's resource plan. If the Commission holds such a hearing or workshop, the Commission may extend the deadline for the Commission to issue an order regarding acknowledgment under subsection (B).

F. While no particular future ratemaking treatment is implied by or shall be inferred from the Commission's acknowledgement, the Commission shall consider a load-serving entity's filings made under R14-2-2704 when the Commission evaluates the performance of the load-serving entity in subsequent rate cases and other proceedings.

G. A load-serving entity may seek Commission approval of specific resource planning actions.

H. A load-serving entity may file an amendment to an acknowledged resource plan if changes in conditions or assumptions necessitate a material change in the load-serving entity's plan before the next resource plan is due to be filed.

R14-2-2708. Resource Procurement

A. Except as provided in subsection (B), a load-serving entity may use the following procurement methods for the wholesale acquisition of energy, capacity, and physical power hedge transactions:

1. Purchase through a third-party on-line trading system;
2. Purchase from a third-party independent energy broker;
3. Purchase from a non-affiliated entity through auction or an RFP process;
4. Bilateral contract with a non-affiliated entity;
5. Bilateral contract with an affiliated entity, provided that non-affiliated entities were provided notice and an opportunity to compete against the affiliated entity's proposal before the transaction was executed; and
6. Any other competitive procurement process approved by the Commission.

B. A load-serving entity shall use an RFP process as its primary acquisition process for the wholesale acquisition of energy and capacity, unless one of the following exceptions applies:

1. The load-serving entity is experiencing an emergency;
2. The load-serving entity needs to make a short-term acquisition to maintain system reliability;
3. The load-serving entity needs to acquire other components of energy procurement, such as fuel, fuel transportation, and transmission projects;
4. The load-serving entity's planning horizon is two years or less;

5. The transaction presents the load-serving entity a genuine, unanticipated opportunity to acquire a power supply resource at a clear and significant discount, compared to the cost of acquiring new generating facilities, and will provide unique value to the load-serving entity's customers;
6. The transaction is necessary for the load-serving entity to satisfy an obligation under the Renewable Energy Standard rules; or
7. The transaction is necessary for the load-serving entity's demand-side management or demand response programs.

C. A load-serving entity shall engage an independent monitor to oversee all RFP processes for procurement of new resources.

R14-2-2709. Independent Monitor Selection and Responsibilities

A. When a load-serving entity contemplates engaging in an RFP process, the load-serving entity shall consult with Staff regarding the identity of companies or consultants that could serve as independent monitor for the RFP process.

B. After consulting with Staff, a load-serving entity shall create a vendor list of three to five candidates to serve as independent monitor and shall file the vendor list with the Commission to allow interested persons time to review and file objections to the vendor list.

C. An interested person shall file with the Commission, within 30 days after a vendor list is filed with the Commission, any objection that the interested person may have to a candidate's inclusion on a vendor list.

D. Within 60 days after a vendor list is filed with the Commission, Staff shall issue a notice identifying each candidate on the vendor list that Staff considers to be qualified to serve as independent monitor for the contemplated RFP process. In making its determination, Staff shall consider the experience of the candidates, the professional reputation of the candidates, and any objections filed by interested persons.

E. A load-serving entity that has completed the actions required by subsections (A) and (B) to comply with a particular Commission Decision is deemed to have complied with subsections (A) and (B) and is not required to repeat those actions.

F. A load-serving entity may retain as independent monitor for the contemplated RFP process and for its future RFP processes any of the candidates identified in Staff's notice.

G. A load-serving entity shall file with the Commission a written notice of its retention of an independent monitor.

H. A load-serving entity is responsible for paying the independent monitor for its services and may charge a reasonable bidder's fee to each bidder in the RFP process to help offset the cost of the independent monitor's services. A load-serving entity may request recovery of the cost of the independent monitor's services, to the extent that the cost is not offset by bidder's fees, in a subsequent rate case. The Commission shall use its discretion in determining whether to allow the cost to be recovered through customer rates.

I. One week prior to the deadline for submitting bids, a load-serving entity shall provide the independent monitor a copy of any bid proposal prepared by the load-serving entity or entity affiliated with the load-serving entity and of any benchmark or reference cost the load-serving entity has developed for use in evaluating bids. The independent monitor shall take steps to secure the load-serving entity's bid proposal and any benchmark or reference cost so that they are inaccessible to any bidder, the load-serving entity, and any entity affiliated with the load-serving entity.

J. Upon Staff's request, the independent monitor shall provide status reports to Staff throughout the RFP process.

R14-2-2710. Waiver Provision

A. The Commission may exempt an Affected Utility from complying with any provision in this Article, upon determining that:

1. The burden of compliance with the provision, or the Article as a whole, exceeds the potential benefits to customers in the form of cost savings, service reliability, risk reductions, or reduced environmental impacts that would result from the Affected Utility's compliance with the provision or Article; and
2. The public interest will be served by the exemption.

B. An Affected Utility requesting an exemption shall submit to the Commission an application that includes, at a minimum:

1. The reasons why the burden of complying with the Article, or the specific provision in the Article for which exemption is requested, exceeds the potential benefits to customers that would result from the Affected Utility's compliance with the provision or Article;

2. Data supporting the Affected Utility's assertions as to the burden of compliance and the potential benefits to customers that would result from compliance; and
3. The reasons why the public interest would be served by the requested exemption.

R14-2-2711. Cooperatives

A. Each Cooperative shall employ best reasonable efforts to comply with the applicable provisions of this Article.

B. Upon Commission approval of a Cooperative's Energy Implementation Plan, its provisions shall substitute for the requirements set forth in this Article.

R14-2-2712. Commission Enforcement

Nothing herein is intended to limit the actions the Commission may take or the penalties the Commission may impose pursuant to Arizona Revised Statutes, Chapter 2, Article 9. An Affected Utility is entitled to notice and an opportunity to be heard prior to Commission action or imposition of penalties.

R14-2-2713. Cost Recovery and Prudency

A. An Affected Utility may recover its prudent costs in accordance with the provisions of this Article in a rate proceeding.

B. If the Commission finds after affording an Affected Utility notice and an opportunity to be heard that the Affected Utility has failed to comply with this Article, the Commission may find that the Affected Utility shall not recover the costs of meeting a Renewable Energy Goal or Clean Peak Goal in rates.

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION - FIXED UTILITIES

ARTICLE 16. RETAIL ELECTRIC COMPETITION

Section

~~R14-2-1618. Environmental Portfolio Standard~~

ARTICLE 16. RETAIL ELECTRIC COMPETITION

~~R14-2-1618. Environmental Portfolio Standard~~

~~A. Upon the effective implementation of a Commission-approved Environmental Portfolio Standard Surcharge tariff, any Load Serving Entity selling electricity or aggregating customers for the purpose of selling electricity under the provisions of this Article must derive at least .2% of the total retail energy sold from new solar resources or environmentally-friendly renewable electricity technologies, whether that energy is purchased or generated by the seller. Solar resources include photovoltaic resources and solar thermal resources that generate electricity. New solar resources and environmentally-friendly renewable electricity technologies are those installed on or after January 1, 1997.~~

~~1. Electric Service Providers, that are not UDCs, are exempt from portfolio requirements until 2004, but could voluntarily elect to participate. ESPs choosing to participate would receive a pro rata share of funds collected from the Environmental Portfolio Surcharge delineated in R14-2-1618.A.2 for portfolio purposes to acquire eligible portfolio systems or electricity generated from such systems.~~

~~2. Utility Distribution Companies would recover part of the costs of the portfolio standard through current System Benefits Charges, if they exist, including a re-allocation of demand side management funding to portfolio uses. Additional portfolio standard costs will be recovered by a customer Environmental Portfolio Surcharge on the customers' monthly bill. The Environmental Portfolio Surcharge shall be assessed monthly to every metered and/or non-metered retail electric service. This monthly assessment will be the lesser of $0.000875 per kWh or:~~

~~a. Residential Customers: $.35 per service,~~

~~b. Non-Residential Customers: $13 per service,~~

~~c. Non-Residential Customers whose metered demand is 3,000 kW or more for three consecutive months: $39.00 per service. In the case of unmetered services, the Load Serving~~

Entity shall, for purposes of billing the Environmental Portfolio Standard Surcharge and subject to the caps set forth above, use the lesser of (i) the load profile or otherwise estimated kWh required to provide the service in question; or (ii) the service's contract kWh.

3. Customer bills shall reflect a line item entitled "Environmental Portfolio Surcharge, mandated by the Corporation Commission."
4. Utility Distribution Companies or ESPs that do not currently have a renewables program may request a waiver or modification of this Section due to extreme circumstances that may exist.

B. The portfolio percentage shall increase after December 31, 2000.

1. Starting January 1, 2001, the portfolio percentage shall increase annually and shall be set according to the following schedule:

YEAR	PORTFOLIO PERCENTAGE
2001	.2%
2002	.4%
2003	.6%
2004	.8%
2005	1.0%
2006	1.05%
2007-2012	1.1%

2. The Commission would continue the annual increase in the portfolio percentage after December 31, 2004, only if the cost of environmental portfolio electricity has declined to a Commission-approved cost/benefit point. The Director, Utilities Division shall establish, not later than January 1, 2003, an Environmental Portfolio Cost Evaluation Working Group to make recommendations to the Commission of an acceptable portfolio electricity cost/benefit point or portfolio kWh cost impact maximum that the Commission could use as a criteria for the decision to continue the increase in the portfolio percentage. The recommendations of the Working Group shall be presented to the Commission not later than June 30, 2003. In no event, however, shall the Commission increase the surcharge caps as delineated in R14-2-1618(A)(2).
3. The requirements for the phase-in of various technologies shall be:
   a. In 2001, the Portfolio kWh makeup shall be at least 50 percent solar electric, and no more than 50 percent other environmentally-friendly renewable electricity technologies or solar hot water or R&D on solar electric resources, but with no more than 10 percent on R&D.

b. In 2002 and 2003, the Portfolio kWh makeup shall be at least 50 percent solar electric, and no more than 50 percent other environmentally-friendly renewable electricity technologies or solar hot water or R&D on solar electric resources, but with no more than 5 percent on R&D.

c. In 2004, through 2012, the portfolio kWh makeup shall be at least 60 percent solar electric with no more than 40 percent solar hot water or other environmentally-friendly renewable electricity technologies.

C. Load-Serving Entities shall be eligible for a number of extra credit multipliers that may be used to meet the portfolio standard requirements. Extra credits may be used to meet portfolio requirements and extra credits from solar electric technologies will also count toward the solar electric fraction requirements in R14-2-1618(B)(3). With the exception of the Early Installation Extra Credit Multiplier, which has a five-year life from operational start-up, all other extra credit multipliers are valid for the life of the generating equipment.

1. Early Installation Extra Credit Multiplier: For new solar electric systems installed and operating prior to December 31, 2003, Load-Serving Entities would qualify for multiple extra credits for kWh produced for five years following operational start-up of the solar electric system. The five-year extra credit would vary depending upon the year in which the system started up, as follows:

YEAR	EXTRA CREDIT MULTIPLIER
1997	.5
1998	.5
1999	.5
2000	.4
2001	.3
2002	.2
2003	.1

Eligibility to qualify for the Early Installation Extra Credit Multiplier would end in 2003. However, any eligible system that was operational in 2003 or before would still be allowed the applicable extra credit for the full five years after operational start-up.

2. Solar Economic Development Extra Credit Multipliers: There are two equal parts to this multiplier, an in-state installation credit and an in-state content multiplier.

a. In-State Power Plant Installation Extra Credit Multiplier: Solar electric power plants installed in Arizona shall receive a .5 extra credit multiplier.

b. In-State Manufacturing and Installation Content Extra Credit Multiplier: Solar electric power plants shall receive up to a .5 extra credit multiplier related to the manufacturing and installation content that comes from Arizona. The percentage of Arizona content of the total installed plant cost shall be multiplied by .5 to determine the appropriate extra credit multiplier. So, for instance, if a solar installation included 80% Arizona content, the resulting extra credit multiplier would be .4 (which is .8 X .5).

3. Distributed Solar Electric Generator and Solar Incentive Program Extra Credit Multiplier: Any distributed solar electric generator that meets more than one of the eligibility conditions will be limited to only one .5 extra credit multiplier from this subsection. Appropriate meters will be attached to each solar electric generator and read at least once annually to verify solar performance.

a. Solar electric generators installed at or on the customer premises in Arizona. Eligible customer premises locations will include both grid-connected and remote, non-grid-connected locations. In order for Load-Serving Entities to claim an extra credit multiplier, the Load-Serving Entity must have contributed at least 10% of the total installed cost or have financed at least 80% of the total installed cost.

b. Solar electric generators located in Arizona that are included in any Load-Serving Entity's Green Pricing program.

c. Solar electric generators located in Arizona that are included in any Load-Serving Entity's Net Metering or Net Billing program.

d. Solar electric generators located in Arizona that are included in any Load-Serving Entity's solar leasing program.

e. All Green Pricing, Net Metering, Net Billing, and Solar Leasing programs must have been reviewed and approved by the Director, Utilities Division in order for the Load-Serving Entity to accrue extra credit multipliers from this subsection.

4. All multipliers are additive, allowing a maximum combined extra credit multiplier of 2.0 in years 1997-2003, for equipment installed and manufactured in Arizona and either installed at customer premises or participating in approved solar incentive programs. So, if a Load-Serving Entity qualifies for a 2.0 extra credit multiplier and it produces 1 solar kWh, the Load-Serving Entity would get credit for 3 solar kWh (1 produced plus 2 extra credit).

D. Load-Serving Entities selling electricity under the provisions of this Article shall provide reports on sales and portfolio power as required in this Article, clearly demonstrating the output of

~~portfolio resources, the installation date of portfolio resources, and the transmission of energy from those portfolio resources to Arizona consumers. The Commission may conduct necessary monitoring to ensure the accuracy of these data. Reports shall be made according to the Reporting Schedule in R14-2-1613(B).~~

~~**E.** Photovoltaic or solar thermal electric resources that are located on the consumer's premises shall count toward the Environmental Portfolio Standard applicable to the current Load-Serving Entity serving that consumer unless a different LoadServing Entity is entitled to receive credit for such resources under the provisions of R14-2-1618(C)(3)(a).~~

~~**F.** Any solar electric generators installed by an Affected Utility to meet the environmental portfolio standard shall be counted toward meeting renewable resource goals for Affected Utilities established in Decision No. 58643.~~

~~**G.** Any Load-Serving Entity that produces or purchases any eligible kWh in excess of its annual portfolio requirements may save or bank those excess kWh for use or sale in future years. Any eligible kWh produced subject to this rule may be sold or traded to any Load-Serving Entity that is subject to this rule. Appropriate documentation, subject to Commission review, shall be given to the purchasing entity and shall be referenced in the reports of the Load-Serving Entity that is using the purchased kWh to meet its portfolio requirements.~~

~~**H.** Environmental Portfolio Standard requirements shall be calculated on an annual basis, based upon electricity sold during the calendar year.~~

~~**I.** A Load-Serving Entity shall be entitled to receive a partial credit against the portfolio requirement if the Load-Serving Entity or its affiliate owns or makes a significant investment in any solar electric manufacturing plant that is located in Arizona. The credit will be equal to the amount of the nameplate capacity of the solar electric generators produced in Arizona and sold in a calendar year times 2,190 hours (approximating a 25% capacity factor).~~

~~1. The credit against the portfolio requirement shall be limited to the following percentages of the total portfolio requirement:~~

~~2001: Maximum of 50% of the portfolio requirement~~

~~2002: Maximum of 25% of the portfolio requirement~~

~~2003 and on: Maximum of 20% of the portfolio requirement~~

~~2. No extra credit multipliers will be allowed for this credit. In order to avoid double-counting of the same equipment, solar electric generators that are used by other Load-Serving Entities~~

~~to meet their Arizona portfolio requirements will not be allowable for credits under this Section for the manufacturer/Electric Service Provider to meet its portfolio requirements.~~

~~**J.** The Director, Utilities Division shall develop appropriate safety, durability, reliability, and performance standards necessary for solar generating equipment and environmentally friendly renewable electricity technologies and to qualify for the portfolio standard. Standards requirements will apply only to facilities constructed or acquired after the standards are publicly issued.~~

~~**K.** A Load-Serving Entity shall be entitled to meet up to 20% of the portfolio requirement with solar water heating systems or solar air conditioning systems purchased by the Load-Serving Entity for use by its customers, or purchased by its customers and paid for by the Load-Serving Entity through bill credits or other similar mechanisms. The solar water heaters must replace or supplement the use of electric water heaters for residential, commercial, or industrial water heating purposes. For the purposes of this rule, solar water heaters will be credited with 1 kWh of electricity produced for each 3,415 British Thermal Units of heat produced by the solar water heater and solar air conditioners shall be credited with kWhs equivalent to those needed to produce a comparable cooling load reduction. Solar water heating systems and solar air conditioning systems shall be eligible for Early Installation Extra Credit Multipliers as defined in R14-2-1618(C)(1) and Solar Economic Development Extra Credit Multipliers as defined in R14-2-1618(C)(2)(b).~~

~~**L.** A Load-Serving Entity shall be entitled to meet the portfolio requirement with electricity produced in Arizona by environmentally-friendly renewable electricity technologies that are defined as in-state landfill gas generators, wind generators, and biomass generators, consistent with the phase-in schedule in R14-2-1618(B)(3). Systems using such technologies shall be eligible for Early Installation Extra Credit Multipliers as defined in R14-2-1618(C)(1) and Solar Economic Development Extra Credit Multipliers as defined in R14-2- 1618(C)(2)(b).~~

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION - FIXED UTILITIES

ARTICLE 23. NET METERING

Section

ARTICLE 23. NET METERING

R14-2-2302. Definitions

12. "Net Metering Customer" means any Arizona Customer who chooses to take electric service in the manner described in the definition of Net Metering in subsection (11) and ~~under~~the Customer's Electric Utility has a Net Metering tariff for which the Customer would be eligible~~, as described in R14-2-2307~~.

R14-2-2307. Net Metering Tariff

~~A. Each Electric Utility shall file, for approval by the Commission, a Net Metering tariff within 120 days from the effective date of these rules, including financial information and supporting data sufficient to allow the Commission to determine the Electric Utility's fair value for the purposes of evaluating any specific proposed charges. The Commission shall issue a decision on these filings within 120 days.~~

~~B~~**A.** If an Electric Utility has a Net Metering tariff, ~~T~~the Net Metering tariff shall specify standard rates for annual purchases of remaining credits from Net Metering Facilities and may specify total utility capacity limits. If total utility capacity limits are included in the tariff, such limits must be fully justified.

~~C~~**B.** Electric utilities may include seasonally and time of day differentiated Avoided Cost rates for purchases from Net Metering Customers, to the extent that Avoided Costs vary by season and time of day.

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION

FIXED UTILITIES

~~ARTICLE 7. RESOURCE PLANNING AND PROCUREMENT~~

Section

~~ARTICLE 7. RESOURCE PLANNING AND PROCUREMENT~~

~~R14-2-701. Definitions~~

~~In this Article, unless otherwise specified:~~

~~1. "Acknowledgment" means a Commission determination, under R14-2-704, that a plan meets the basic requirements of this Article.~~

~~2. "Affiliated" means related through ownership of voting securities, through contract, or otherwise in such a manner that one entity directly or indirectly controls another, is directly or indirectly controlled by another, or is under direct or indirect common control with another entity.~~

~~3. "Benchmark" means to calibrate against a known set of values or standards.~~

~~4. "Book life" means the expected time period over which a power supply source will be available for use by a load-serving entity.~~

~~5. "Btu" means British thermal unit.~~

~~6. "Capacity" means the amount of electric power, measured in megawatts, that a power source is rated to provide.~~

~~7. "Capital costs" means the construction and installation cost of facilities, including land, land rights, structures, and equipment.~~

8. ~~"Coincident peak" means the maximum of the sum of two or more demands that occur in the same demand interval, which demand interval may be established on an annual, monthly, or hourly basis.~~

9. ~~"Customer class" means a subset of customers categorized according to similar characteristics, such as amount of energy consumed; amount of demand placed on the energy supply system at the system peak; hourly, daily, or seasonal load pattern; primary type of activity engaged in by the customer, including residential, commercial, industrial, agricultural, and governmental; and location.~~

10. ~~"Decommissioning" means the process of safely and economically removing a generating unit from service.~~

11. ~~"Demand management" means beneficial reduction in the total cost of meeting electric energy service needs by reducing or shifting in time electricity usage.~~

12. ~~"Derating" means a reduction in a generating unit's capacity.~~

13. ~~"Discount rate" means the interest rate used to calculate the present value of a cost or other economic variable.~~

14. ~~"Docket Control" means the office of the Commission that receives all official filings for entry into the Commission's public electronic docketing system.~~

15. ~~"Emergency" means an unforeseen and unforeseeable condition that:~~

    a. ~~Does not arise from the load-serving entity's failure to engage in good utility practices,~~

    b. ~~Is temporary in nature, and~~

    c. ~~Threatens reliability or poses another significant risk to the system.~~

16. ~~"End use" means the final application of electric energy, for activities such as, but not limited to, heating, cooling, running an appliance, or motor, an industrial process, or lighting.~~

17. ~~"Energy losses" means the quantity of electric energy generated or purchased that is not available for sale to end users, for resale, or for use by the load-serving entity.~~

18. ~~"Escalation" means the change in costs due to inflation, changes in manufacturing processes, changes in availability of labor or materials, or other factors.~~

19. ~~"Generating unit" means a specific device or set of devices that converts one form of energy (such as heat or solar energy) into electric energy, such as a turbine and generator or a set of photovoltaic cells.~~

~~20. "Heat rate" means a measure of generating station thermal efficiency expressed in Btus per net kilowatt-hour and computed by dividing the total Btu content of fuel used for electric generation by the kilowatt-hours of electricity generated.~~

~~21. "Independent monitor" means a company or consultant that is not affiliated with a load-serving entity and that is selected to oversee the conduct of a competitive procurement process under R14-2-706.~~

~~22. "Integration" means methods by which energy produced by intermittent resources can be incorporated into the electric grid.~~

~~23. "Intermittent resources" means electric power generation for which the energy production varies in response to naturally occurring processes like wind or solar intensity.~~

~~24. "Interruptible power" means power made available under an agreement that permits curtailment or cessation of delivery by the supplier.~~

~~25. "In-service date" means the date a power supply source becomes available for use by a load-serving entity.~~

~~26. "Load-serving entity" means a public service corporation that provides electricity generation service and operates or owns, in whole or in part, a generating facility or facilities with capacity of at least 50 megawatts combined.~~

~~27. "Long term" means having a duration of three or more years.~~

~~28. "Maintenance" means the repair of generation, transmission, distribution, administrative, and general facilities; replacement of minor items; and installation of materials to preserve the efficiency and working condition of the facilities.~~

~~29. "Mothballing" means the temporary removal of a generating unit from active service and accompanying storage activities.~~

~~30. "Operate" means to manage or otherwise be responsible for the production of electricity by a generating facility, whether that facility is owned by the operator, in whole or in part, or by another entity.~~

~~31. "Participation rate" means the proportion of customers who take part in a specific program.~~

~~32. "Probabilistic analysis" means a systematic evaluation of the effect, on costs, reliability, or other measures of performance, of possible events affecting factors that influence performance, considering the likelihood that the events will occur.~~

~~33. "Production cost" means the variable operating costs and maintenance costs of producing electricity through generation plus the cost of purchases of power sufficient to meet demand.~~

~~34. "Refurbish" means to make major changes, more extensive than maintenance or repair, in the power production, transmission, or distribution characteristics of a component of the power supply system, such as by changing the fuels that can be used in a generating unit or changing the capacity of a generating unit.~~

~~35. "Reliability" means a measure of the ability of a load-serving entity's generation, transmission, or distribution system to provide power without failures to reflect the portion of time that a system is unable to meet demand or the kilowatt-hours of demand that could not be supplied.~~

~~36. "Renewable energy resource" means an energy resource that is replaced rapidly by a natural, ongoing process and that is not nuclear or fossil fuel.~~

~~37. "Reserve requirements" means the capacity that a load-serving entity must maintain in excess of its peak load to provide for scheduled maintenance, forced outages, unforeseen loads, emergencies, system operating requirements, and reserve sharing arrangements.~~

~~38. "Reserve sharing arrangement" means an agreement between two or more load-serving entities to provide backup capacity.~~

~~39. "Resource planning" means integrated supply and demand analyses completed as described in this Article.~~

~~40. "RFP" means request for proposals.~~

~~41. "Self generation" means the production of electricity by an end user.~~

~~42. "Sensitivity analysis" means a systematic assessment of the degree of response of costs, reliability, or other measures of performance to changes in assumptions about factors that influence performance.~~

~~43. "Short term" means having a duration of less than three years.~~

~~44. "Spinning reserve" means the capacity a load-serving entity must maintain connected to the system and ready to deliver power promptly in the event of an unexpected loss of generation source, expressed as a percentage of peak load, as a percentage of the largest generating unit, or as in fixed megawatts.~~

~~45. "Staff" means individuals working for the Commission's Utilities Division, whether as employees or through contract.~~

~~46. "Third-party independent energy broker" means an entity, such as Prebon Energy or Tradition Financial Services, that facilitates an energy transaction between separate parties without taking title to the transaction.~~

~~47. "Third-party on-line trading system" means a computer-based marketplace for commodity exchanges provided by an entity that is not affiliated with the load-serving entity, such as the Intercontinental Exchange, California Independent System Operator, or New York Mercantile Exchange.~~

~~48. "Total cost" means all capital, operating, maintenance, fuel, and decommissioning costs, plus the costs associated with mitigating any adverse environmental effects, incurred, by end users, load-serving entities, or others, in the provision or conservation of electric energy.~~

~~R14-2-702. Applicability~~

~~A.~~ ~~This Article applies to each load-serving entity, whether the power generated is for sale to end users or is for resale.~~

~~B.~~ ~~An electricity public service corporation that becomes a load-serving entity by increasing its generating capacity to at least 50 megawatts combined shall provide written notice to the Commission within 30 days after the increase and shall comply with the filing requirements in this Article within two years after the notice is filed.~~

~~C.~~ ~~The Commission may, by Order, exempt a load-serving entity from complying with any provision in this Article, or the Article as a whole, upon determining that:~~

~~1. The burden of compliance with the provision, or the Article as a whole, exceeds the potential benefits to customers in the form of cost savings, service reliability, risk reductions, or reduced environmental impacts that would result from the load-serving entity's compliance with the provision or Article; and~~

~~2. The public interest will be served by the exemption.~~

~~D.~~ ~~A load-serving entity that desires an exemption shall submit to Docket Control an application that includes, at a minimum:~~

~~1. The reasons why the burden of complying with the Article, or the specific provision in the Article for which exemption is requested, exceeds the potential benefits to customers that would result from the load-serving entity's compliance with the provision or Article;~~

2. Data supporting the load-serving entity's assertions as to the burden of compliance and the potential benefits to customers that would result from compliance; and

3. The reasons why the public interest would be served by the requested exemption.

E. A load-serving entity shall file with Docket Control, within 120 days after the effective date of these rules, the documents that would have been due on April 1, 2010, under R14-2-703(C), (D), (E), (F), and (H) had the revisions to those subsections been effective at that time.

R14-2-703. Load-serving entity reporting requirements

A. A load-serving entity shall, by April 1 of each year, file with Docket Control a compilation of the following items of demand-side data, including for each item for which no record is maintained the load-serving entity's best estimate and a full description of how the estimate was made:

1. Hourly demand for the previous calendar year, disaggregated by:

   a. Sales to end users;

   b. Sales for resale;

   c. Energy losses; and

   d. Other disposition of energy, such as energy furnished without charge and energy used by the load-serving entity;

2. Coincident peak demand (megawatts) and energy consumption (megawatt-hours) by month for the previous 10 years, disaggregated by customer class;

3. Number of customers by customer class for each of the previous 10 years.; and

4. Reduction in load (kilowatt and kilowatt-hours) in the previous calendar year due to existing demand management measures, by type of demand management measure.

B. A load-serving entity shall, by April 1 of each year, file with Docket Control a compilation of the following items of supply-side data, including for each item for which no record is maintained the load-serving entity's best estimate and a full description of how the estimate was made:

1. For each generating unit and purchased power contract for the previous calendar year:

   a. In-service date and book life or contract period;

   b. Type of generating unit or contract;

   c. The load-serving entity's share of the generating unit's capacity, or of capacity under the contract, in megawatts;

d. Maximum generating unit or contract capacity, by hour, day, or month, if such capacity varies during the year;

e. Annual capacity factor (generating units only);

f. Average heat rate of generating units and, if available, heat rates at selected output levels;

g. Average fuel cost for generating units, in dollars per million Btu for each type of fuel;

h. Other variable operating and maintenance costs for generating units, in dollars per megawatt hour;

i. Purchased power energy costs for long-term contracts, in dollars per megawatt-hour;

j. Fixed operating and maintenance costs of generating units, in dollars per megawatt;

k. Demand charges for purchased power;

l. Fuel type for each generating unit;

m. Minimum capacity at which the generating unit would be run or power must be purchased;

n. Whether, under standard operating procedures, the generating unit must be run if it is available to run;

o. Description of each generating unit as base load, intermediate, or peaking;

p. Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation;

q. Water consumption quantities and rates; and

r. Tons of coal ash produced per generating unit;

2. For the power supply system for the previous calendar year:

a. A description of generating unit commitment procedures;

b. Production cost;

c. Reserve requirements;

d. Spinning reserve;

e. Reliability of generating, transmission, and distribution systems;

f. Purchase and sale prices, averaged by month, for the aggregate of all purchases and sales related to short-term contracts; and

g. Energy losses;

3. The level of self generation in the load-serving entity's service area for the previous calendar year; and

4. An explanation of any resource procurement processes used by the load-serving entity during the previous calendar year that did not include use of an RFP, including the exception under which the process was used.

C. A load-serving entity shall, by April 1 of each even year, file with Docket Control a compilation of the following items of load data and analyses, which may include a reference to the last filing made under this subsection for each item for which there has been no change in forecast since the last filing:

1. Fifteen-year forecast of system coincident peak load (megawatts) and energy consumption (megawatt-hours) by month and year, expressed separately for residential, commercial, industrial, and other customer classes; for interruptible power; for resale; and for energy losses;

2. Disaggregation of the load forecast of subsection (C)(1) into a component in which no additional demand management measures are assumed, and a component assuming the change in load due to additional forecasted demand management measures.; and

3. Documentation of all sources of data, analyses, methods, and assumptions used in making the load forecasts, including a description of how the forecasts were benchmarked and justifications for selecting the methods and assumptions used.

D. A load-serving entity shall, by April 1 of each even year, file with Docket Control the following prospective analyses and plans, which shall compare a wide range of resource options and take into consideration expected duty cycles, cost projections, other analyses required under this Section, environmental impacts, and water consumption and may include a reference to the last filing made under this subsection for each item for which there has been no change since the last filing:

1. A 15-year resource plan, providing for each year:
   a. Projected data for each of the items listed in subsection (B)(1), for each generating unit and purchased power source, including each generating unit that is expected to be new or refurbished during the period, which shall be designated as new or refurbished, as applicable, for the year of purchase or the period of refurbishment;
   b. Projected data for each of the items listed in subsection (B)(2), for the power supply system;
   c. The capital cost, construction time, and construction spending schedule for each generating unit expected to be new or refurbished during the period;
   d. The escalation levels assumed for each component of cost, such as, but not limited to, operating and maintenance, environmental compliance, system integration, backup capacity, and transmission delivery, for each generating unit and purchased power source.;
   e. If discontinuation, decommissioning, or mothballing of any power source and or permanent derating of any generating facility is expected:
      i. Identification of each power source or generating unit involved;
      ii. The costs and spending schedule for each discontinuation, decommissioning, mothballing, or derating; and
      iii. The reasons for each discontinuation, decommissioning, mothballing, or derating;
   f. The capital costs and operating and maintenance costs of all new or refurbished transmission and distribution facilities expected during the 15-year period;
   g. An explanation of the need for and purpose of all expected new or refurbished transmission and distribution facilities., which explanation shall incorporate the load-serving entity's most recent transmission plan filed under A.R.S. § 40-360.02(A) and any relevant provisions of the Commission's most recent Biennial Transmission Assessment decision regarding the adequacy of transmission facilities in Arizona; and
   h. Cost analyses and cost projections;

2. Documentation of the data, assumptions, and methods or models used to forecast production costs and power production for the 15-year resource plan, including the method by which the forecast was benchmarked;
3. A description of each potential power source that was rejected; the capital costs, operating costs, and maintenance costs of each rejected source; and an explanation of the reasons for rejecting each source;
4. A 15-year forecast of self generation by customers of the load-serving entity, in terms of annual peak production (megawatts) and annual energy production (megawatt-hours).;
5. Disaggregation of the forecast of subsection (D)(4) into two components, one reflecting the self generation projected if no additional efforts are made to self generation, and one reflecting the self generation projected to result from the load-serving entity's institution of additional forecasted self generation measures;
6. A 15-year forecast of the annual capital costs and operating and maintenance costs of the self generation identified under subsections (D)(4) and (D)(5);
7. Documentation of the analysis of the self generation under subsections (D)(4) through (6);
8. A plan that considers using a wide range of resources and promotes fuel and technology diversity within its portfolio;
9. A calculation of the benefits of generation using renewable energy resources;
10. A plan that factors in the delivered cost of all resource options, including costs associated with environmental compliance, system integration, backup capacity, and transmission delivery;
11. Analysis of integration costs for intermittent resources;
12. A plan to increase the efficiency of the load-serving entity's generation using fossil fuel;
13. Data to support technology choices for supply-side resources;
14. A description of the demand management programs or measures included in the 15-year resource plan, including for each demand management program or measure:
    a. How and when the program or measure will be implemented;
    b. The projected participation level by customer class for the program or measure;

c. The expected change in peak demand and energy consumption resulting from the program or measure;

d. The expected reductions in environmental impacts including air emissions, solid waste, and water consumption attributable to the program or measure;

e. The expected societal benefits, societal costs, and cost-effectiveness of the program or measure;

f. The expected life of the measure; and

g. The capital costs, operating costs, and maintenance costs of the measure, and the program costs;

15. For each demand management measure that was considered but rejected:

a. A description of the measure;

b. The estimated change in peak demand and energy consumption from the measure;

c. The estimated cost-effectiveness of the measure;

d. The capital costs, operating costs, and maintenance costs of the measure, and the program costs; and

e. The reasons for rejecting the measure;

16. Analysis of future fuel supplies that are part of the resource plan; and

17. A plan for reducing environmental impacts related to air emissions, solid waste, and other environmental factors, and a plan for reducing water consumption. The costs for compliance with current and projected future environmental regulations shall be included in the analysis of resources required by R14-2-703(D) and (E). A load-serving entity or any interested parties may also provide, for the Commission's consideration, analyses and supporting data pertaining to environmental impacts associated with the generation or delivery of electricity, which may include monetized estimates of environmental impacts that are not included as costs for compliance. Values or factors for compliance costs, environmental impacts, or monetization of environmental impacts may be developed and reviewed by the Commission in other proceedings or stakeholder workshops.

E. A load-serving entity shall, by April 1 of each even year, file with Docket Control a compilation of the following analyses and plan:

1. Analyses to identify and assess errors, risks, and uncertainties in the following, completed using methods such as sensitivity analysis and probabilistic analysis:
   a. Demand forecasts;
   b. The costs of demand management measures and power supply;
   c. The availability of sources of power;
   d. The costs of compliance with existing and expected environmental regulations;
   e. Any analysis by the load-serving entity in anticipation of potential new or enhanced environmental regulations;
   f. Changes in fuel prices, and availability;
   g. Construction costs, capital costs, and operating costs; and
   h. Other factors the load-serving entity wishes to consider.;
2. A description and analysis of available means for managing the errors, risks, and uncertainties identified and analyzed in subsection (E)(1), such as obtaining additional information, limiting risk exposure, using incentives, creating additional options, incorporating flexibility, and participating in regional generation and transmission projects; and
3. A plan to manage the errors, risks, and uncertainties identified and analyzed in subsection (E)(1).

F. A load-serving entity shall, by April 1 of each even year, file with Docket Control a 15-year resource plan that:

1. Selects a portfolio of resources based upon comprehensive consideration of a wide range of supply- and demand-side options;
2. Will result in the load-serving entity's reliably serving the demand for electric energy services;
3. Will address the adverse environmental impacts of power production;
4. Will include renewable energy resources so as to meet at least the greater of the Annual Renewable Energy Requirement in R14-2-1804 or the following annual percentages of retail kWh sold by the load-serving entity:

Calendar Year	Percentage of Retail kWh sold during calendar Year

~~2010~~	~~2.5%~~
~~2011~~	~~3.0%~~
~~2012~~	~~3.5%~~
~~2013~~	~~4.0%~~
~~2014~~	~~4.5%~~
~~2015~~	~~5.0%~~
~~2016~~	~~6.0%~~
~~2017~~	~~7.0%~~
~~2018~~	~~8.0%~~
~~2019~~	~~9.0%~~
~~2020~~	~~10.0%~~
~~2021~~	~~11.0%~~
~~2022~~	~~12.0%~~
~~2023~~	~~13.0%~~
~~2024~~	~~14.0%~~
~~after 2024~~	~~15.0%~~

~~5. Will include distributed generation energy resources so as to meet at least the greater of the Distributed Renewable Energy Requirement in R14-2-1805 or the following annual percentages as applied to the load-serving entity's Annual Renewable Energy Requirement:~~

~~2007 5%~~

~~2008 10%~~

~~2009 15%~~

~~2010 20%~~

~~2011 25%~~

~~After 2011 30%~~

~~6. Will address energy efficiency so as to meet any requirements set in rule by the Commission;~~

~~7. Will effectively manage the uncertainty and risks associated with costs, environmental impacts, load forecasts, and other factors;~~

8. Will achieve a reasonable long-term total cost, taking into consideration the objectives set forth in subsections (F)(2)-(7) and the uncertainty of future costs; and

9. Contains all of the following:

a. A complete description and documentation of the plan, including supply and demand conditions, availability of transmission, costs, and discount rates utilized;

b. A comprehensive, self-explanatory load and resources table summarizing the plan;

c. A brief executive summary;

d. An index to indicate where the responses to each filing requirement of these rules can be found; and

e. Definitions of the terms used in the plan.

G. A load-serving entity shall, by April 1 of each odd year, file with Docket Control a work plan that includes:

1. An outline of the contents of the resource plan the load-serving entity is developing to be filed the following year as required under subsection (F);

2. The load-serving entity's method for assessing potential resources;

3. The sources of the load-serving entity's current assumptions; and

4. An outline of the timing and extent of public participation and advisory group meetings the load-serving entity intends to hold before completing and filing the resource plan.

H. With its resource plan, a load-serving entity shall include an action plan, based on the results of the resource planning process, that:

1. Includes a summary of actions to be taken on future resource acquisitions;

2. Includes details on resource types, resources capacity, and resource timing; and

3. Covers the three-year period following the Commission's acknowledgment of the resource plan.

I. If a load-serving entity's submission does not contain sufficient information to allow Staff to analyze the submission fully for compliance with this Article, Staff shall request additional information from the load-serving entity, including the data used in the load-serving entity's analyses.

~~**J.** Staff may request that a load-serving entity complete additional analyses to improve specified components of the load-serving entity's submissions.~~

~~**K.** If a load-serving entity believes that a data-reporting requirement may result in disclosure of confidential business data or confidential electricity infrastructure information, the load-serving entity may submit to Staff a request that the data be submitted to Staff under a confidentiality agreement, which request shall include an explanation justifying the confidential treatment of the data.~~

~~**L.** Data protected by a confidentiality agreement shall not be submitted to Docket Control and will not be open to public inspection or otherwise made public except upon an order of the Commission entered after written notice to the load-serving entity.~~

~~**R14-2-704. Commission review of load-serving entity resource plans**~~

~~**A.** By October 1 of each even year, Staff shall file a report that contains its analysis and conclusions regarding its statewide review and assessments of the load-serving entities' filings made under R14-2-703(C), (D), (E), (F), and (H).~~

~~**B.** By February 1 of each odd year, the Commission shall issue an order acknowledging a load-serving entity's resource plan or issue an order stating the reasons for not acknowledging the resource plan. The Commission shall order an acknowledgment of a load-serving entity's resource plan, with or without amendment, if the Commission determines that the resource plan, as amended if applicable, complies with the requirements of this Article and that the load-serving entity's resource plan is reasonable and in the public interest, based on the information available to the Commission at the time and considering the following factors:~~

~~1. The total cost of electric energy services;~~

~~2. The degree to which the factors that affect demand, including demand management, have been taken into account;~~

~~3. The degree to which supply alternatives, such as self generation, have been taken into account;~~

~~4. Uncertainty in demand and supply analyses, forecasts, and plans, and whether plans are sufficiently flexible to enable the load-serving entity to respond to unforeseen changes in supply and demand factors;~~

~~5. The reliability of power supplies, including fuel diversity and non-cost considerations;~~

6. The reliability of the transmission grid;

7. The degree to which the load-serving entity considered all relevant resources, risks, and uncertainties;

8. The degree to which the load-serving entity's plan for future resources is in the best interest of its customers;

9. The best combination of expected costs and associated risks for the load-serving entity and its customers; and

10. The degree to which the load-serving entity's resource plan allows for coordinated efforts with other load-serving entities.

C. The Commission may hold a hearing or workshop regarding a load-serving entity's resource plan. If the Commission holds such a hearing or workshop, the Commission may extend the February 1 deadline for the Commission to issue an order regarding acknowledgment under subsection (B).

D. While no particular future ratemaking treatment is implied by or shall be inferred from the Commission's acknowledgement, the Commission shall consider a load-serving entity's filings made under R14-2-703 when the Commission evaluates the performance of the load-serving entity in subsequent rate cases and other proceedings.

E. A load-serving entity may seek Commission approval of specific resource planning actions.

F. A load-serving entity may file an amendment to an acknowledged resource plan if changes in conditions or assumptions necessitate a material change in the load-serving entity's plan before the next resource plan is due to be filed.

R14-2-705. Procurement

A. Except as provided in subsection (B), a load-serving entity may use the following procurement methods for the wholesale acquisition of energy, capacity, and physical power hedge transactions:

1. Purchase through a third-party on-line trading system;

2. Purchase from a third-party independent energy broker;

3. Purchase from a non-affiliated entity through auction or an RFP process;

4. Bilateral contract with a non-affiliated entity;

5. Bilateral contract with an affiliated entity, provided that non-affiliated entities were provided notice and an opportunity to compete against the affiliated entity's proposal before the transaction was executed; and

6. Any other competitive procurement process approved by the Commission.

B. A load-serving entity shall use an RFP process as its primary acquisition process for the wholesale acquisition of energy and capacity, unless one of the following exceptions applies:

1. The load-serving entity is experiencing an emergency;

2. The load-serving entity needs to make a short-term acquisition to maintain system reliability;

3. The load-serving entity needs to acquire other components of energy procurement, such as fuel, fuel transportation, and transmission projects;

4. The load-serving entity's planning horizon is two years or less;

5. The transaction presents the load-serving entity a genuine, unanticipated opportunity to acquire a power supply resource at a clear and significant discount, compared to the cost of acquiring new generating facilities, and will provide unique value to the load-serving entity's customers;

6. The transaction is necessary for the load-serving entity to satisfy an obligation under the Renewable Energy Standard rules; or

7. The transaction is necessary for the load-serving entity's demand-side management or demand response programs.

C. A load-serving entity shall engage an independent monitor to oversee all RFP processes for procurement of new resources.

R14-2-706. Independent Monitor Selection and Responsibilities

A. When a load-serving entity contemplates engaging in an RFP process, the load-serving entity shall consult with Staff regarding the identity of companies or consultants that could serve as independent monitor for the RFP process.

B. After consulting with Staff, a load-serving entity shall create a vendor list of three to five candidates to serve as independent monitor and shall file the vendor list with Docket Control to allow interested persons time to review and file objections to the vendor list.

~~C. An interested person shall file with Docket Control, within 30 days after a vendor list is filed with Docket Control, any objection that the interested person may have to a candidate's inclusion on a vendor list.~~

~~D. Within 60 days after a vendor list is filed with Docket Control, Staff shall issue a notice identifying each candidate on the vendor list that Staff considers to be qualified to serve as independent monitor for the contemplated RFP process. In making its determination, Staff shall consider the experience of the candidates, the professional reputation of the candidates, and any objections filed by interested persons.~~

~~E. A load-serving entity that has completed the actions required by subsections (A) and (B) to comply with a particular Commission Decision is deemed to have complied with subsections (A) and (B) and is not required to repeat those actions.~~

~~F. A load-serving entity may retain as independent monitor for the contemplated RFP process and for its future RFP processes any of the candidates identified in Staff's notice.~~

~~G. A load-serving entity shall file with Docket Control a written notice of its retention of an independent monitor.~~

~~H. A load-serving entity is responsible for paying the independent monitor for its services and may charge a reasonable bidder's fee to each bidder in the RFP process to help offset the cost of the independent monitor's services. A load-serving entity may request recovery of the cost of the independent monitor's services, to the extent that the cost is not offset by bidder's fees, in a subsequent rate case. The Commission shall use its discretion in determining whether to allow the cost to be recovered through customer rates.~~

~~I. One week prior to the deadline for submitting bids, a load-serving entity shall provide the independent monitor a copy of any bid proposal prepared by the load-serving entity or entity affiliated with the load-serving entity and of any benchmark or reference cost the load-serving entity has developed for use in evaluating bids. The independent monitor shall take steps to secure the load-serving entity's bid proposal and any benchmark or reference cost so that they are inaccessible to any bidder, the load-serving entity, and any entity affiliated with the load-serving entity.~~

~~J. Upon Staff's request, the independent monitor shall provide status reports to Staff throughout the RFP process.~~

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION - FIXED UTILITIES

~~ARTICLE 18. RENEWABLE ENERGY STANDARD AND TARIFF~~

Section

~~ARTICLE 18. RENEWABLE ENERGY STANDARD AND TARIFF~~

~~R14-2-1801. Definitions~~

~~**A.** "Affected Utility" means a public service corporation serving retail electric load in Arizona, but excluding any Utility Distribution Company with more than half of its customers located outside of Arizona.~~

~~**B.** "Annual Renewable Energy Requirement" means the portion of an Affected Utility's annual retail electricity sales that must come from Eligible Renewable Energy Resources.~~

~~C. "Conventional Energy Resource" means an energy resource that is non-renewable in nature, such as natural gas, coal, oil, and uranium, or electricity that is produced with energy resources that are not Renewable Energy Resources.~~

~~D. "Customer Self-Directed Renewable Energy Option" means a Commission-approved program under which an Eligible Customer may self-direct the use of its allocation of funds collected pursuant to an Affected Utility's Tariff.~~

~~E. "Distributed Generation" means electric generation sited at a customer premises, providing electric energy to the customer load on that site or providing wholesale capacity and energy to the local Utility Distribution Company for use by multiple customers in contiguous distribution substation service areas. The generator size and transmission needs shall be such that the plant or associated transmission lines do not require a Certificate of Environmental Compatibility from the Corporation Commission.~~

~~F. "Distributed Renewable Energy Requirement" means a portion of the Annual Renewable Energy Requirement that must be met with Renewable Energy Credits derived from resources that qualify as Distributed Renewable Energy Resources pursuant to R14-2-1802(B).~~

~~G. "Distributed Solar Electric Generator" means electric generation sited at a customer premises, providing electric energy from solar electric resources to the customer load on that site or providing wholesale capacity and energy to the local Utility Distribution Company for use by multiple customers in contiguous distribution substation service areas. The generator size and transmission needs shall be such that the plant or associated transmission lines do not require a Certificate of Environmental Compatibility from the Corporation Commission.~~

~~H. "Eligible Customer" means an entity that pays Tariff funds of at least $25,000 annually for any number of related accounts or services within an Affected Utility's service area.~~

~~I. "Extra Credit Multiplier" means a way to increase the Renewable Energy Credits attributable to specific Eligible Renewable Energy Resources in order to encourage specific renewable applications.~~

~~J. "Green Pricing" means a rate option in which a customer elects to pay a tariffed rate premium for electricity derived from Eligible Renewable Energy Resources.~~

~~K. "Market Cost of Comparable Conventional Generation" means the Affected Utility's energy and capacity cost of producing or procuring the incremental electricity that would be avoided by the resources used to meet the Annual Renewable Energy Requirement, taking into account hourly, seasonal, and long-term supply and demand circumstances. Avoided costs include any avoided transmission and distribution costs and any avoided environmental compliance costs.~~

~~**L.** "Net Billing" means a system of billing a customer who installs an Eligible Renewable Energy Resource generator on the customer's premises for retail electricity purchased at retail rates while crediting the customer's bill for any customer-generated electricity sold to the Affected Utility at avoided cost.~~

~~**M.** "Net Metering" means a system of metering electricity by which the Affected Utility credits the customer at the full retail rate for each kilowatt-hour of electricity produced by an Eligible Renewable Energy Resource system installed on the customer-generator's side of the electric meter, up to the total amount of electricity used by that customer during an annualized period, and which compensates the customer-generator at the end of the annualized period for any excess credits at a rate equal to the Affected Utility's avoided cost of wholesale power. The Affected Utility does not charge the customer-generator any additional fees or charges or impose any equipment or other requirements unless the same is imposed on customers in the same rate class that the customer-generator would qualify for if the customer-generator did not have generation equipment.~~

~~**N.** "Renewable Energy Credit" means the unit created to track kWh derived from an Eligible Renewable Energy Resource or kWh equivalent of Conventional Energy Resources displaced by Distributed Renewable Energy Resources.~~

~~**O.** "Renewable Energy Resource" means an energy resource that is replaced rapidly by a natural, ongoing process and that is not nuclear or fossil fuel.~~

~~**P.** "Tariff" means a Commission-approved rate designed to recover an Affected Utility's reasonable and prudent costs of complying with these rules.~~

~~**Q.** "Utility Distribution Company" means a public service corporation that operates, constructs, or maintains a distribution system for the delivery of power to retail customers.~~

~~**R.** "Wholesale Distributed Generation Component" means non-utility owners of Eligible Renewable Energy Resources that are located within the distribution system and that do not require a transmission line over 69 kv to deliver power at wholesale to an Affected Utility to meet its Annual Renewable Energy Requirements.~~

~~**R14-2-1802. Eligible Renewable Energy Resources**~~

~~**A.** "Eligible Renewable Energy Resources" are applications of the following defined technologies that displace Conventional Energy Resources that would otherwise be used to provide electricity to an Affected Utility's Arizona customers:~~

1. ~~"Biogas Electricity Generator" is a generator that produces electricity from gases that are derived from plant-derived organic matter, agricultural food and feed matter, wood wastes, aquatic plants, animal wastes, vegetative wastes, or wastewater treatment facilities using anaerobic digestion or from municipal solid waste through a digester process, an oxidation process, or other gasification process.~~
2. ~~"Biomass Electricity Generator" is an electricity generator that uses any raw or processed plant-derived organic matter available on a renewable basis, including: dedicated energy crops and trees; agricultural food and feed crops; agricultural crop wastes and residues; wood wastes and residues, including landscape waste, right-of-way tree trimmings, or small diameter forest thinnings that are 12" in diameter or less; dead and downed forest products; aquatic plants; animal wastes; other vegetative waste materials; non-hazardous plant matter waste material that is segregated from other waste; forest-related resources, such as harvesting and mill residue, pre-commercial thinnings, slash, and brush; miscellaneous waste, such as waste pellets, crates, and dunnage; and recycled paper fibers that are no longer suitable for recycled paper production, but not including painted, treated, or pressurized wood, wood contaminated with plastics or metals, tires, or recyclable post-consumer waste paper.~~
3. ~~"Distributed Renewable Energy Resources" as defined in subsection (B).~~
4. ~~"Eligible Hydropower Facilities" are hydropower generators that were in existence prior to 1997 and that satisfy one of the following two criteria:~~
   a. ~~New Increased Capacity of Existing Hydropower Facilities: A hydropower facility that increases capacity due to improved technological or operational efficiencies or operational improvements resulting from improved or modified turbine design, improved or modified wicket gate assembly design, improved hydrological flow conditions, improved generator windings, improved electrical excitation systems, increases in transformation capacity, and improved system control and operating limit modifications. The electricity kWh that are eligible to meet the Annual Renewable Energy Requirements shall be limited to the new, incremental kWh output resulting from the capacity increase that is delivered to Arizona customers to meet the Annual Renewable Energy Requirement.~~
   b. ~~Generation from pre-1997 hydropower facilities that is used to firm or regulate the output of other eligible, intermittent renewable resources. The electricity kWh that are eligible to meet the Annual Renewable Energy Requirements shall be limited to the kWh actually generated to~~

~~firm or regulate the output of eligible intermittent Renewable Energy Resources and that are delivered to Arizona customers to meet the Annual Renewable Energy Requirements.~~

5. ~~"Fuel Cells that Use Only Renewable Fuels" are fuel cell electricity generators that operate on renewable fuels, such as hydrogen created from water by Eligible Renewable Energy Resources. Hydrogen created from non-Renewable Energy Resources, such as natural gas or petroleum products, is not a renewable fuel.~~
6. ~~"Geothermal Generator" is an electricity generator that uses heat from within the earth's surface to produce electricity.~~
7. ~~"Hybrid Wind and Solar Electric Generator" is a system in which a Wind Generator and a solar electric generator are combined to provide electricity.~~
8. ~~"Landfill Gas Generator" is an electricity generator that uses methane gas obtained from landfills to produce electricity.~~
9. ~~"New Hydropower Generator of 10 MW or Less" is a generator, installed after January 1, 2006, that produces 10 MW or less and is either:~~
   a. ~~A low-head, micro hydro run-of-the-river system that does not require any new damming of the flow of the stream; or~~
   b. ~~An existing dam that adds power generation equipment without requiring a new dam, diversion structures, or a change in water flow that will adversely impact fish, wildlife, or water quality; or~~
   c. ~~Generation using canals or other irrigation systems.10. "Solar Electricity Resources" use sunlight to produce electricity by either photovoltaic devices or solar thermal electric resources.~~

11. ~~"Wind Generator" is a mechanical device that is driven by wind to produce electricity.~~

B. ~~"Distributed Renewable Energy Resources" are applications of the following defined technologies that are located at a customer's premises and that displace Conventional Energy Resources that would otherwise be used to provide electricity to Arizona customers:~~

1. ~~"Biogas Electricity Generator," "Biomass Electricity Generator," "Geothermal Generator," "Fuel Cells that Use Only Renewable Fuels," "New Hydropower Generator of 10 MW or Less," or "Solar Electricity Resources," as each of those terms is defined in subsections (A)(1), (A)(2), (A)(5), (A)(6), (A)(9), and (A)(10).~~

2. ~~"Biomass Thermal Systems" and "Biogas Thermal Systems" are systems which use fuels as defined in subsections (A)(1) and (A)(2) to produce thermal energy and that comply with Environmental Protection Agency Certification Programs or are permitted by state, county, or local air quality authorities. For purposes of this definition "Biomass Thermal Systems" and "Biogas Thermal Systems" do not include biomass and wood stoves, furnaces, and fireplaces.~~
3. ~~"Commercial Solar Pool Heaters" are devices that use solar energy to heat commercial or municipal swimming pools.~~
4. ~~"Geothermal Space Heating and Process Heating Systems" are systems that use heat from within the earth's surface for space heating or for process heating.5. "Renewable Combined Heat and Power System" is a Distributed Generation system, fueled by an Eligible Renewable Energy Resource, that produces both electricity and useful renewable process heat. Both the electricity and renewable process heat may be used to meet the Distributed Renewable Energy Requirement.~~
6. ~~"Solar Daylighting" is the non-residential application of a device specifically designed to capture and redirect the visible portion of the solar beam, while controlling the infrared portion, for use in illuminating interior building spaces in lieu of artificial lighting.~~
7. ~~"Solar Heating, Ventilation, and Air Conditioning" ("HVAC") is the combination of Solar Space Cooling and Solar Space Heating as part of one system.~~
8. ~~"Solar Industrial Process Heating and Cooling" is the use of solar thermal energy for industrial or commercial manufacturing or processing applications.~~
9. ~~"Solar Space Cooling" is a technology that uses solar thermal energy absent the generation of electricity to drive a refrigeration machine that provides for space cooling in a building.~~
10. ~~"Solar Space Heating" is a method whereby a mechanical system is used to collect solar energy to provide space heating for buildings.~~
11. ~~"Solar Water Heater" is a device that uses solar energy rather than electricity or fossil fuel to heat water for residential, commercial, or industrial purposes.~~
12. ~~"Wind Generator of 1 MW or Less" is a mechanical device, with an output of 1 MW or less, that is driven by wind to produce electricity.~~

~~**C.** Except as provided in subsection (A)(4), Eligible Renewable Energy Resources shall not include facilities installed before January 1, 1997.~~

~~**D.** The Commission may adopt pilot programs in which additional technologies are established as Eligible Renewable Energy Resources. Any such additional technologies shall be Renewable Energy~~

~~Resources that produce electricity, replace electricity generated by Conventional Energy Resources, or replace the use of fossil fuels with Renewable Energy Resources. Energy conservation products, energy management products, energy efficiency products, or products that use non-renewable fuels shall not be eligible for these pilot programs.~~

~~R14-2-1803. Renewable Energy Credits~~

~~A.~~ ~~One Renewable Energy Credit shall be created for each kWh derived from an Eligible Renewable Energy Resource.~~

~~B.~~ ~~For Distributed Renewable Energy Resources, one Renewable Energy Credit shall be created for each 3,415 British Thermal Units of heat produced by a Solar Water Heating System, a Solar Industrial Process Heating and Cooling System, Solar Space Cooling System, Biomass Thermal System, Biogas Thermal System, or a Solar Space Heating System.~~

~~C.~~ ~~An Affected Utility may transfer Renewable Energy Credits to another party and may acquire Renewable Energy Credits from another party. A Renewable Energy Credit is owned by the owner of the Eligible Renewable Energy Resource from which it was derived unless specifically transferred.~~

~~D.~~ ~~All transfers of Renewable Energy Credits shall be appropriately documented to demonstrate that the energy associated with the Renewable Energy Credits meets the provisions of R14-2-1802.~~

~~E.~~ ~~Any contract by an Affected Utility for purchase or sale of energy or Renewable Energy Credits to meet the requirements of this Rule shall explicitly describe the transfer of rights concerning both energy and Renewable Energy Credits.~~

~~F.~~ ~~Except in the case of Distributed Renewable Energy Resources, Affected Utilities must demonstrate the delivery of energy from Eligible Renewable Energy Resources to their retail consumers such as by providing proof that the necessary transmission rights were reserved and utilized to deliver energy from Eligible Renewable Energy Resources to the Affected Utility's system, if transmission is required, or that the appropriate control area operators scheduled the energy from Eligible Renewable Energy Resources for delivery to the Affected Utility's system.~~

~~R14-2-1804. Annual Renewable Energy Requirement~~

~~A. In order to ensure reliable electric service at reasonable rates, each Affected Utility shall be required to satisfy an Annual Renewable Energy Requirement by obtaining Renewable Energy Credits from Eligible Renewable Energy Resources.~~

~~B. An Affected Utility's Annual Renewable Energy Requirement shall be calculated each calendar year by applying the following applicable annual percentage to the retail kWh sold by the Affected Utility during that calendar year:~~

~~2006~~	~~1.25%~~
~~2007~~	~~1.50%~~
~~2008~~	~~1.75%~~
~~2009~~	~~2.00%~~
~~2010~~	~~2.50%~~
~~2011~~	~~3.00%~~
~~2012~~	~~3.50%~~
~~2013~~	~~4.00%~~
~~2014~~	~~4.50%~~
~~2015~~	~~5.00%~~
~~2016~~	~~6.00%~~
~~2017~~	~~7.00%~~
~~2018~~	~~8.00%~~
~~2019~~	~~9.00%~~
~~2020~~	~~10.00%~~
~~2021~~	~~11.00%~~
~~2022~~	~~12.00%~~
~~2023~~	~~13.00%~~
~~2024~~	~~14.00%~~
~~After 2024~~	~~15.00%~~

~~The annual increase in the annual percentage for each Affected Utility will be pro rated for the first year based on when the Affected Utility's funding mechanism is approved.~~

~~**C.** An Affected Utility may use Renewable Energy Credits acquired in any year to meet its Annual Renewable Energy Requirement.~~

~~**D.** Once a Renewable Energy Credit is used by any Affected Utility to satisfy these requirements, the credit is retired and cannot be subsequently used to satisfy these rules or any other regulatory requirement.~~

~~**E.** If an Affected Utility trades or sells environmental pollution reduction credits or any other environmental attributes associated with kWh produced by an Eligible Renewable Energy Resource, the Affected Utility may not apply Renewable Energy Credits derived from that same kWh to satisfy the requirements of these rules.~~

~~**F.** No more than 20 percent of an Affected Utility's Annual Renewable Energy Requirement may be met with Renewable Energy Credits derived pursuant to R14-2-1807.~~

~~**G.** An Affected Utility may ask the Commission to preapprove agreements to purchase energy or Renewable Energy Credits from Eligible Renewable Energy Resources.~~

~~**R14-2-1805. Distributed Renewable Energy Requirement**~~

~~**A.** In order to improve system reliability, each Affected Utility shall be required to satisfy a Distributed Renewable Energy Requirement by obtaining Renewable Energy Credits from Distributed Renewable Energy Resources.~~

~~**B.** An Affected Utility's Distributed Renewable Energy Requirement shall be calculated each calendar year by applying the following applicable annual percentage to the Affected Utility's Annual Renewable Energy Requirement:~~

~~2007 5%~~
~~2008 10%~~
~~2009 15%~~
~~2010 20%~~
~~2011 25%~~
~~After 2011 30%~~

~~The annual increase in the annual percentage for each Affected Utility will be pro rated for the first year based on when the Affected Utility's funding mechanism is approved.~~

~~**C.** An Affected Utility may use Renewable Energy Credits acquired in any year to meet its Distributed Renewable Energy Requirement. Once a Renewable Energy Credit is used by any Affected Utility to satisfy these requirements, the credit is retired.~~

~~**D.** An Affected Utility shall meet one-half of its annual Distributed Renewable Energy Requirement from residential applications and the remaining one-half from non-residential, non-utility applications.~~

~~**E.** An Affected Utility may satisfy no more than 10 percent of its annual Distributed Renewable Energy Requirement from Renewable Energy Credits derived from distributed Renewable Energy Resources that are non-utility-owned generators that sell electricity at wholesale to Affected Utilities. This~~

~~Wholesale Distributed Generation Component shall qualify for the non-residential portion of the Distributed Renewable Energy Requirement.~~

~~R14-2-1806. Extra Credit Multipliers~~

~~A.~~ ~~Renewable Energy Credits derived from Eligible Renewable Energy Resources installed after December 31, 2005, shall not be eligible for Extra Credit Multipliers.~~

~~B.~~ ~~The extra Renewable Energy Credits resulting from any applicable multiplier shall be added to the Renewable Energy Credits produced by the Eligible Renewable Energy Resource to determine the total Renewable Energy Credits that may be used to meet an Affected Utility's Annual Renewable Energy Requirement.~~

~~C.~~ ~~"Early Installation Extra Credit Multiplier." Affected Utilities acquiring Renewable Energy Credits from a Solar Electricity Resource, a Solar Water Heater, a Solar Space Cooling system, a Landfill Gas Generator, a Wind Generator, or a Biomass Electricity Generator that was installed and began operations between January 1, 2001, and December 31, 2003, shall be eligible for an Early Installation Extra Credit Multiplier. Renewable Energy Credits derived from such facilities and acquired by Affected Utilities shall be eligible for five years following the facility's operational start-up. The multiplier shall vary according to the year in which the system began operating:~~

~~2001 .3~~

~~2002 .2~~

~~2003 .1~~

~~D.~~ ~~"In-State Power Plant Installation Extra Credit Multiplier." Affected Utilities acquiring Renewable Energy Credits from a Solar Electricity Resource that was installed in Arizona on or before December 31, 2005, shall be eligible for an In-State Power Plant Installation Extra Credit Multiplier. The Renewable Energy Credits derived from such a facility and acquired by an Affected Utility shall be multiplied by .5 annually for the life of the facility. The extra Renewable Energy Credits resulting from the multiplier shall be added to the Renewable Energy Credits produced by the Eligible Renewable Energy Resource to determine the total Renewable Energy Credits that may be used to meet an Affected Utility's Annual Renewable Energy Requirement.~~

~~E.~~ ~~"In-State Manufacturing and Installation Content Extra Credit Multiplier." Affected Utilities acquiring Renewable Energy Credits from a Solar Electricity Resource, a Solar Water Heater, a Solar Space Cooling system, a Landfill Gas Generator, a Wind Generator, or a Biomass Electricity Generator that was installed in Arizona on or before December 31, 2005, and that contains components~~

~~manufactured in Arizona shall be eligible for an In-State Manufacturing and Installation Content Extra Credit Multiplier. The Renewable Energy Credits derived from such a facility and acquired by an Affected Utility shall be multiplied annually for the life of the facility by a factor determined by multiplying .5 times the percent of Arizona content of the total installed plant.~~

~~**F.** "Distributed Solar Electric Generator and Solar Incentive Program Extra Credit Multiplier." Affected Utilities acquiring Renewable Energy Credits from a Distributed Solar Electric Generator that was installed in Arizona on or before December 31, 2005, shall be eligible for a Distributed Solar Electric Generator and Solar Incentive Program Extra Credit Multiplier if the facility meets at least two of the following criteria:~~

~~1. The facility is installed on customer premises,~~

~~2. The facility is included in any Affected Utility's approved Green Pricing program,~~

~~3. The facility is included in any Affected Utility's approved Net Metering or Net Billing program,~~

~~4. The facility is included in any Affected Utility's approved solar leasing program, or~~

~~5. The facility is owned by and located on an Affected Utility's property or customer property. The Renewable Energy Credits derived from such a facility and acquired by an Affected Utility shall be multiplied by .5 annually for the life of the facility. Meters will be attached to each solar electric generator and read at least once annually to verify solar performance.~~

~~**G.** All multipliers are additive, except that the maximum combined Extra Credit Multiplier shall not exceed 2.0.~~

~~**R14-2-1807. Manufacturing Partial Credit**~~

~~**A.** An Affected Utility may acquire Renewable Energy Credits to apply to the non-distributed portion of its Annual Renewable Energy Requirement if it or its affiliate owns or makes a significant investment in any solar electric manufacturing plant located in Arizona or if it or its affiliate provides incentives to a manufacturer of solar electric products to locate a manufacturing facility in Arizona.~~

~~**B.** The Renewable Energy Credits shall be equal to the nameplate capacity of the solar electric generators produced and sold in a calendar year times 2,190 hours, which approximates a 25 percent capacity factor.~~

~~**C.** Extra credit multipliers shall not apply to Renewable Energy Credits created by this Section.~~

~~R14-2-1808. Tariff~~

~~**A.** Within 60 days of the effective date of these rules, each Affected Utility shall file with the Commission a Tariff in substantially the same form as the Sample Tariff set forth in these rules that proposes~~

~~methods for recovering the reasonable and prudent costs of complying with these rules. The specific amounts in the Sample Tariff are for illustrative purposes only and Affected Utilities may submit, with proper support, Tariff filings with alternative surcharge amounts.~~

B. ~~The Affected Utility's Tariff filing shall provide the following information:~~

1. ~~Financial information and supporting data sufficient to allow the Commission to determine the Affected Utility's fair value for purposes of evaluating the Affected Utility's proposed Tariff. Information submitted in the format of the Annual Report required under R14-2-212(G)(4) will be the minimum information necessary for filing a Tariff application but Commission Staff may request additional information depending upon the type of Tariff filing that is submitted.~~
2. ~~A discussion of the suitability of the Sample Tariff set forth in Appendix A for recovering the Affected Utility's reasonable and prudent costs of complying with these rules,~~
3. ~~Data to support the level of costs that the Affected Utility contends will be incurred in order to comply with these rules,~~
4. ~~Data to demonstrate that the Affected Utility's proposed Tariff is designed to recover only the costs in excess of the Market Cost of Comparable Conventional Generation, and~~
5. ~~Any other information that the Commission believes will be relevant to the Commission's consideration of the Tariff filing.~~

C. ~~The Commission will approve, modify, or deny a Tariff proposed pursuant to subsection (A) within 180 days after the Tariff has been filed. The Commission may suspend this deadline or adopt an alternative procedural schedule for good cause. The Affected Utility's Annual Renewable Energy Requirement, as set forth in R14-2-1804(B), Distributed Renewable Energy Requirement, as set forth in R14-2-1805(B), will be effective upon Commission approval of the Tariff filed pursuant to this Section.~~

D. ~~If an Affected Utility has an adjustor mechanism for the recovery of costs related to Annual Renewable Energy Requirements, the Affected Utility may file a request to reset its adjustor mechanism in lieu of a Tariff pursuant to subsection (A). The Affected Utility's filing shall provide all the information required by subsection (B), except that it may omit information specifically related to the fair value determination. The Affected Utility's Annual Renewable Energy Requirement, as set forth in R14-2-1804(B), and Distributed Renewable Energy Requirement, as set forth in R14-2-1805(B) will be effective upon Commission approval of the adjustor mechanism rate filed pursuant to this Section.~~

~~**E.** An Affected Utility may file a rate case pursuant to R14-2-103 in lieu of a Tariff pursuant to subsection (A). The Affected Utility's filing shall provide all information required by subsection (B).~~

~~**R14-2-1809. Customer Self-Directed Renewable Energy Option**~~

~~**A.** By January 1, 2007, each Affected Utility shall file with Docket Control a Tariff by which an Eligible Customer may apply to an Affected Utility to receive funds to install distributed Renewable Energy Resources. The funds annually received by an Eligible Customer pursuant to this Tariff may not exceed the amount annually paid by the Eligible Customer pursuant to the Affected Utility's Tariff.~~

~~**B.** An Eligible Customer seeking to participate in this program shall submit to the Affected Utility a written application that describes the Renewable Energy Resources that it proposes to install and the projected cost of the project. An Eligible Customer shall provide at least half of the funding necessary to complete the project described in its application.~~

~~**C.** All Renewable Energy Credits derived from the project, including generation and Extra Credit Multipliers, shall be applied to satisfy the Affected Utility's Annual Renewable Energy Requirement.~~

~~**R14-2-1810. Uniform Credit Purchase Program**~~

~~**A.** The Director of the Utilities Division shall establish a Uniform Credit Purchase Program working group, which will study issues related to implementing Distributed Renewable Energy Resources. The working group shall address the consumer participation process, budgets, incentive levels, eligible technologies, system requirements, installation requirements, and any other issues that are relevant to encouraging the implementation of Distributed Renewable Energy Resources. No later than March 1, 2007, the Director of the Utilities Division shall file a staff report with recommendations for Uniform Credit Purchase Programs.~~

~~**B.** No later than July 1, 2007, each Affected Utility shall file a Uniform Credit Purchase Program for Commission review and approval.~~

~~**R14-2-1811. Net Metering and Interconnection Standards**~~

~~The Commission Staff shall host a series of workshops addressing the issues of rate design including Net Metering and interconnection standards. Upon completion of this task, and the adoption of rules or standards, if appropriate, each Affected Utility shall file conforming Net Metering tariffs and interconnection standards in Docket Control.~~

~~**R14-2-1812. Compliance Reports**~~

~~**A.** Beginning April 1, 2007, and every April 1st thereafter, each Affected Utility shall file with Docket Control a report that describes its compliance with the requirements of these rules for the previous~~

~~calendar year. The Affected Utility shall also transmit to the Director of the Utilities Division an electronic copy of this report that is suitable for posting on the Commission's website.~~

~~**B.** The compliance report shall include the following information:~~

1. ~~The actual kWh of energy or equivalent obtained from Eligible Renewable Energy Resources;~~
2. ~~The kWh of energy or equivalent obtained from Eligible Renewable Energy Resources normalized to reflect a full year's production;~~
3. ~~The kW of generation capacity, disaggregated by technology type;~~
4. ~~Cost information regarding cents per actual kWh of energy obtained from Eligible Renewable Energy Resources and cents per kW of generation capacity, disaggregated by technology type;~~
5. ~~A breakdown of the Renewable Energy Credits used to satisfy both the Annual Renewable Energy Requirement and the Distributed Renewable Energy Requirement and appropriate documentation of the Affected Utility's receipt of those Renewable Energy Credits; and~~
6. ~~A description of the Affected Utility's procedures for choosing Eligible Renewable Energy Resources and a certification from an independent auditor that those procedures are fair and unbiased and have been appropriately applied.~~

~~**C.** The Commission may hold a hearing to determine whether an Affected Utility's compliance report satisfies the requirements of these rules.~~

~~**R14-2-1813. Implementation Plans**~~

~~**A.** Beginning July 1, 2007, and every July 1st thereafter, each Affected Utility shall file with Docket Control for Commission review and approval a plan that describes how it intends to comply with these rules for the next calendar year. The Affected Utility shall also transmit an electronic copy of this plan that is suitable for posting on the Commission's website to the Director of the Utilities Division.~~

~~**B.** The implementation plan shall include the following information:~~

1. ~~A description of the Eligible Renewable Energy Resources, identified by technology, proposed to be added by year for the next five years and a description of the kW and kWh to be obtained from each of those resources ;~~
2. ~~The estimated cost of each Eligible Renewable Energy Resource proposed to be added, including cost per kWh and total cost per year;~~
3. ~~A description of the method by which each Eligible Renewable Energy Resource is to be obtained, such as self-build, customer installation, or request for proposals;~~

4. A proposal that evaluates whether the Affected Utility's existing rates allow for the ongoing recovery of the reasonable and prudent costs of complying with these rules, including a Tariff application that meets the requirements of R14-2-1808 and addresses the Sample Tariff set forth in Appendix A if necessary; and
5. A line item budget that allocates specific funding for Distributed Renewable Energy Resources, for the Customer Self-Directed Renewable Energy Option, for power purchase agreements, for utility-owned systems, and for each Eligible Renewable Energy Resource described in the Affected Utility's implementation plan

C. The Commission may hold a hearing to determine whether an Affected Utility's implementation plan satisfies the requirements of these rules.

R14-2-1814. Electric Power Cooperatives

A. Within 60 days of the effective date of these rules, every electric cooperative that is an Affected Utility shall file with Docket Control an appropriate plan for acquiring Renewable Energy Credits from Eligible Renewable Energy Resources for the next calendar year and a Tariff that proposes methods for recovering the reasonable and prudent costs of complying with its proposed plan and addresses the Sample Tariff set forth in Appendix A. The cooperative shall also transmit electronic copies of these filings that are suitable for posting on the Commission's website to the Director of the Utilities Division. Upon Commission approval of this plan, its provisions shall substitute for the requirements of R14-2-1804 and R14-2-1805 for the electric power cooperative proposing the plan.

B. Beginning July 1, 2007, and every July 1st thereafter, every electric cooperative that is an Affected Utility shall file with Docket Control an appropriate plan for acquiring Renewable Energy Credits from Eligible Renewable Energy Resources for the next calendar year. The cooperative shall also transmit an electronic copy of this plan that is suitable for posting on the Commission's website to the Director of the Utilities Division.

R14-2-1815. Enforcement and Penalties

A. If an Affected Utility fails to meet the annual requirements set forth in R14-2-1804 and R14-2-1805,it shall include with its annual compliance report a notice of noncompliance.

B. The notice of noncompliance shall provide the following information:

1. A computation of the difference between the Renewable Energy Credits required by R14-2-1804 and R14-2-1805 and the amount actually obtained,

2. A plan describing how the Affected Utility intends to meet the shortfall from the previous calendar year in the current calendar year, and

3. An estimate of the costs of meeting the shortfall.

C. If the Commission finds after affording an Affected Utility notice and an opportunity to be heard that the Affected Utility has failed to comply with its implementation plan approved by the Commission as set forth in R14-2-1813, the Commission may find that the Affected Utility shall not recover the costs of meeting the shortfall described in R14-2-1815(B) in rates.

D. Nothing herein is intended to limit the actions the Commission may take or the penalties the Commission may impose pursuant to Arizona Revised Statutes, Chapter 2, Article 9. An Affected Utility is entitled to notice and an opportunity to be heard prior to Commission action or imposition of penalties.

R14-2-1816. Waiver from the Provisions of this Article

The Commission may waive compliance with any provision of this Article for good cause. Any Affected Utility may petition the Commission to waive its compliance with any provision of this Article for good cause. A petition filed pursuant to these rules shall have priority over other matters filed at the Commission.

Appendix A. Sample Tariff

Unless otherwise ordered by the Commission, the renewable energy standard surcharge shall be assessed monthly to every retail electric service. This monthly assessment will be the lesser of $0.004988 per kWh or:

1. For residential customers, $1.05 per service;

2. For non-residential customers, $39.00 per service;

3. For non-residential customers whose metered demand is 3,000 kW or more for three consecutive months, $117.00 per service;

4. For non-metered services, the lesser of the load profile or otherwise estimated kWh required to provide the service in question, or the service's contract kWh shall be used in the calculation of the surcharge.

Appendix C
Summary of Written Comments

Docket No. RU-00000A-18-0284

Interwest Energy Alliance ("Interwest") (February 22, 2019)

Interwest supports increasing Arizona's [Renewable Energy Standard and Tariff ("REST")]. Interwest recommends ambitious and binding near-term and interim targets set at two-year intervals to ensure development of low-cost renewable energy resources between now and the deadline to achieve the REST goal. Federal tax credits available for wind and solar energy can still provide substantial savings in the near term. In a subsequent filing, Interwest stated its support for increasing Arizona's renewable energy percentage within the REST, noting that competitive pricing renewable energy offers to ratepayers.

Individual: Bruce Plenk (February 22, 2019)

Mr. Plenk comments on Commissioner Kennedy's letter of February 8, 2019, and Commissioner Tobin's proposals. He supports:

Increasing the REST to 50 percent by 2028 and advocates increasing it to 100 percent by 2050. Distributed solar with storage should be encouraged. Distributed solar with storage carve-out should be expanded from the current 30 percent to 50 percent.

Commissioner Kennedy's suggestion to give priority (and perhaps some bonus REST incentive) to utility purchases of power from PPAs and solar developments on tribal land.

Retirement of all nonrenewable projects by 2050, continuing a 22 percent energy efficiency standard and increasing it to 30 percent.

Individual: Elaine Kohrman (February 26, 2019)

The United State Department of Agriculture ("USDA") Forest Service has filed comments rebutting statements made by a member of the public at the February 25, 2019 Special Open Meeting regarding the status of the development and release of a Request for Proposals regarding the Four Forest Restoration Initiative ("4FRI"). The RFP that the USDA Forest Service is preparing will not be released for potential bidders in March as previously stated before the Arizona Corporation Commission ("ACC" or "Commission") from other parties. The information provided regarding the timing, specific details, and strategic views do not represent the Forest Service's status of work on this matter. At this point, the RFP for solicitation with be conducted in May.

Individual: Barbara McGuire (February 20, 2019)

Barbara McGuire urges the Commission to change its standard for clean and renewable energy to a standard which would require 50 percent renewables by the year 2028. This would

benefit children with asthma, adults with respiratory conditions and the entire population of the state by achieving cleaner air.

Arizonans for Electric Choice and Competition ("AECC") (March 22, 2019)

The Commission should evaluate retail electric competition on a separate track from its broader consideration of possible modifications to the Commission's Energy Rules.

AECC believes, at a minimum, the Commission should evaluate the potential adoption of retail electric competition rules in parallel with the REST rules and Integrated Resource Planning ("IRP") rules so that a full market can be structured and developed inclusive of those concepts.

Notwithstanding this general support, AECC opposes the Arizona Energy Modernization Plan's ("AEMP") requirement for regulated utilities to propose Electric Vehicle ("EV") charging infrastructure within future Clean Renewable Energy Standard and Tariff ("CREST") implementation plans for the Commission's consideration. The Commission should not seek to establish another monopoly service in the form of EV charging infrastructure when such infrastructure to a large extent already have been provided by private stakeholders within the competitive market.

The Arizona Competitive Power Alliance ("AzCPA") (March 25, 2019)

The ACC is best suited to facilitate discussion of clean energy targets so that all affected stakeholders may equally participate to chart a smart and reasonable path forward.

AzCPA urges reform to the current IRP process. AzCPA proposes a new market-based planning and procurement process whereby the utilities make procurement and planning decisions based upon competitive bids in order to select the most cost-effective resources. The Commission does not evaluate the costs and benefits of the IRP scenarios. Accordingly, this process often does not result in the most cost-competitive plan for ratepayers, nor does it encourage timely adoption of newer technologies.

The failure of the most recent IRP has demonstrated several fundamental problems with the resource planning process. The IRPs: 1. Lack timely and current market inputs to factor in as the foundation for choosing resource solutions and scenarios; 2. Lack a timely and efficient process; 3. Are not competitive or based on market bids; and 4. Are not binding - perhaps the greatest shortcoming of the existing IRP process is that the ACC doesn't "approve" the final report, but rather simply "acknowledges" it. The utility is under no obligation to ask the ACC to amend the report to accommodate a new project or strategic direction that the report does not envision.

The ACC should create a new REST Implementation plan which codifies the asset mix and procurement policies that are most likely to ensure that the ACC achieves its goals. The ACC may decide to repeal and replace the existing IRP process, or amend the REST rules, but seeking to salvage the existing IRP process is not the solution.

The new process would start with options of a need or objective (i.e. capacity, energy or cost-effective resource replacement). Once the direction is established by the ACC, the utilities would then go out to the market and provide to the ACC options with market-based costs for fulfilling the need/objective. AzCPA believes Commissioner Kennedy's proposal of 50 percent renewable energy by 2028, Commissioner Tobin's goal of 80 percent clean by 2050 with a three GW storage target by 2030 are reasonable, achievable and complementary.

Distributed Generation ("DG") should count towards the clean energy target only when it reduces demand. It should not be considered a supply resource. Including DG as supply-side increases the likelihood of counting the resource twice towards the same goal. Battery storage should fall into the broad category of "energy and capacity" and is otherwise not contemplated in any of the exceptions. We believe that the ACC should make it clear that any storage projects that the utilities undertake must be the result of a competitive bidding process that ensures consumers receive the best value possible. AzCPA believes that new solar projects - with or without battery storage - now fall under the competitive bidding requirements

Energy Storage Association ("ESA") (March 25, 2019)

ESA shares the Commission's concern that updates to existing energy rules are required to reflect the immense technological changes that have taken place over the past decade, and the State of Arizona's interest in driving a transition to a low-carbon and more efficient electric grid.

ESA proposes a framework for battery storage which includes three critical components: (l) a storage deployment target that will ensure the infrastructure is in place to support the Commission's clean energy objectives, (2) programs to ensure the realization of the target, including market-based solutions and incentives, and (3) reforms to utility and grid planning rules to ensure energy storage is adequately considered next to traditional investments.

ESA proposes a long-term storage deployment target. The target should include electrochemical, mechanical, thermal, and gravitational energy storage technologies and encourages a variety of system sizes, ownership models, and applications. A Clean Peak Standard, such as the one proposed by Commissioner Tobin in the Energy Modernization Plan, creates one such mechanism to value the specific time of day that clean energy resources deliver electricity whether directly or via storage for re-delivery at peak. Alternatively, the Commission might explore a "Clean Flexible Capacity Requirement" that requires a certain percentage of new proposed capacity to provide defined flexibility benefits while reducing carbon emissions. The Commission could similarly consider a "Clean Shift Rate," which uses a tariff to compensate customer-sited energy storage resources for shifting the delivery of clean energy to the grid from low-value periods to high-value periods.

ESA recommends a simple and straightforward approach to determining eligibility of standalone storage for any clean and flexible capacity programs. Each eligible resource should be able to meet one of the following three criteria in order to obtain compensation under a clean and flexible capacity program. ESA has the following recommendations: 1) The resource is co-located with a renewable energy generator; 2) Retire an eligible Renewable Energy Credits ("REC")

without payment to demonstrate eligibility; and 3) Demonstrate that the resource was charged at low emissions hour.

Vote Solar (March 25,2019)

Vote Solar supports Commissioner Kennedy's and Commissioner Tobin's proposals. From Vote Solar's perspective, the question of clean energy versus renewable energy is important. Detailed modeling, like that suggested by Commissioner Kennedy in her February 8, 2019 letter, can help to inform the process. Initial modeling conducted in 2018 revealed that a 50 percent renewables target could be met by 2040 while saving Arizonans more than $4 billion.

Vote Solar does not advocate that Palo Verde be eliminated before its time. Vote Solar states that new nuclear energy is uneconomic and comes with a wide range of environmental concerns that are not present with renewable energy.

Vote Solar urges the Commission to develop a renewable and/or clean energy requirement rather than a goal.

Vote Solar supports Commissioner Kennedy's proposal to increase the DG carve out and to consider the addition of distributed storage.

Vote Solar believes that the current method for compensating DG through the Resource Comparison Proxy ("RCP") is not reflected in the existing net metering rules and the rules should be modified such that the current policy is included.

Vote Solar opposes the combination of the REST rules with the IRP rules.

Ingersoll Rand (March 25, 2019)

Ingersoll Rand is a member of the Energy Storage Association and manufactures iceBank thermal energy storage. Ice-based energy storage enables commercial and industrial energy users to reduce their peak electric demand during hot summer days, by time shifting cheaper nighttime electricity to day time use. This is accomplished by "charging" or using chillers to create ice that is then used for cooling during the day.

Ingersoll Rand proposes the modification of a proposed definition for energy storage resources contained in a Draft Set of formal Rules for the EMP to encompass ice-based energy storage.

Grand Canyon State Electric Cooperative Association, Inc. ("GCSECA") (March 25, 2019)

GCSECA urges the Commission to maintain and incorporate flexibility when addressing the Cooperatives. The Cooperatives do not oppose the concept of consolidating the Commission's energy rules.

GCSECA requests that the following provision of the current rules be maintained with the inclusion of a section regarding Commissioner Tobin's proposal to include the Clean Energy Goal and Energy Storage Goal in RI4-2-1813 and R14-2-l82:

R14-2-1814. Electric Power Cooperatives

A. Within 60 days of the effective date of these rules, every electric cooperative that is an Affected Utility shall file with Docket Control an appropriate plan for acquiring Renewable Energy Credits from Eligible Renewable Energy Resources for the next calendar year and a Tariff that proposes methods for recovering the reasonable and prudent costs of complying with its proposed plan and addresses the Sample Tariff set forth in Appendix A. The cooperative shall also transmit electronic copies of these filings that are suitable for posting on the Commission's web site to the Director of the Utilities Division. Upon Commission approval of this plan, its provisions shall substitute for the requirements of Rl4-2- 1804 and R14-2-1805, the Clean Energy Goal and Energy Storage Goal in RI4-2-1813 and R14-2-l821 for the electric power cooperative proposing the plan.

GCSECA states that modifications to R14-2-1618 are unnecessary given the Commission's decisions declaring that the Environmental Portfolio Standard requirements are superseded or replaced by the REST rules. See Decision Nos. 76762. 76151. 70360. 70314. 70313. 70305. 70168. 70165. and 70096. Accordingly, GCSECA recommends R14-2-1618 be repealed in its entirety to avoid confusion in the future.

GCSECA proposes amendments and additions to the Net Metering rules to incorporate the Commission's rulings in Decision No. 75859 (from the Value and Cost of DG docket), and Decision No. 76207 (granting waivers to the R14-2-2308 Net Metering Facilities reporting requirement):

GCSECA proposes a Waiver Article which would explicitly authorize that electric utilities may seek waivers and that the Commission may waive compliance with provisions Rules.:

Tesla (March 25, 2019)

Tesla encourages the Commission to implement a storage target within the modified REST Rules given the value of storage, particularly with higher penetrations of renewable energy. Tesla states that battery storage benefits include:

- Deferral or avoidance of costly investments in generation, transmission and distribution.
- Enhancement of the integration of intermittent solar and wind renewable energy.
- Provision of flexible ramping capacity, frequency regulation, and voltage support. and
- Increases in the security, reliability, and resiliency, of the electric grid.

Tesla provides a table showing a Summary of US Energy Storage Targets in several states.

Sierra Club (March 25, 2019)

Sierra Club does not support including nuclear power in a "clean energy standard". Nuclear power is not clean. Sierra Club states there are serious health and environmental issues related to uranium mining.

Sierra Club continues to support REST rules separate from the IRP rules, which also need a good hard look, but they should not be conflated. The Commission should act now to increase the REST to at least 50 percent renewables.

Western Resource Advocates ("WRA") (March 25, 2019)

WRA supports the adoption of a new requirement that by 2045, Arizona utilities meet 100 percent of their retail sales with zero carbon energy sources, and an increase of the renewable energy requirement to at least 50 percent of retail sales.

WRA provides information regarding renewable standards of other states: New Mexico, California, Nevada and Colorado.

WRA opposes merging the REST and IRP rules because the rules serve different purposes.

WRA recommends the Commission amend the REST rules to require utilities to meet 100 percent of energy demands with zero-carbon electricity by 2045. WRA recommends the Commission create a new section establishing a zero-carbon requirement and defining an accounting mechanism to ensure utilities are achieving the standard. Commissioner Tobin's proposed CREST offers one potential definition of a facility that could earn zero-emission credits: "an energy resource that operates with zero net emissions beyond that of steam." WRA describes other strategies to define zero-emission credits. WRA believes the Commission should require utilities to meet a 50 percent RES by 2035 and should establish interim renewable energy requirements of 30 percent in 2025 and 40 percent in 2030.

WRA recommends the Commission expand the definition of DG to include Community Solar.

Calpine Energy Solutions ("Calpine") (March 25, 2019)

Calpine supports the portion of the AECC's March 22, 2019 filing, which pertain to retail electric competition. Calpine recommends use of Docket No. RE-00000A-18-0405, as the means to evaluate retail electric competition. Alternatively, AECC believes that the Commission should contemporaneously evaluate the adoption of rules designed to allow for the resumption of retail electric competition "in parallel with the Renewable Energy Standard and Tariff ('REST') rules and Integrated Resource Planning ('IRP') rules so that a full market can be structured and developed inclusive of those concepts.

Sunrun (March 25,2019)

Sunrun proposes ideas that the Commission should consider incentives if it wants to encourage customers installing solar to pair their solar systems with battery storage.

A challenging aspect exists within the Value of Solar decision's Resource Comparison Proxy ("RCP") methodology is the long-term uncertainty of the export rate beyond year ten. Under the RCP, the customer has no idea what the export rate will be in year eleven and beyond, making financing significantly more difficult and uncertain. The Commission should consider encouraging customers to pair storage with their solar investment by providing customers adding storage with twenty years of export rate certainty instead of the ten years offered to those with standalone solar.

Every customer installing rooftop solar also installs storage at the same time. The creation of an annual distributed storage target would ensure distributed storage resources are deployed across the service territories of all affected utilities. This requirement would involve a minimum number of installations tied to a percentage of the overall renewable energy requirement, similar to how the DG carve-out is structured today.

Tucson Electric Power Company ("TEP") and UNS Electric, Inc. ("UNS Electric") (March 26, 2019)

TEP and UNS Electric support the Commission's efforts to update Arizona's energy policies in a manner that enables utilities to provide their customers with safe, reliable, affordable and sustainable energy.

Arizona needs a coordinated, integrated energy policy whereby the IRP, REST and the Energy Efficiency Standard would be combined into one planning process as opposed to separate dockets or proceedings. Individual utilities would then implement this coordinated energy policy through the IRP process.

The Pascua Yaqui Tribe (March 27, 2019)

The Commission [should] conduct separate meetings, hearings or workshops with the federally recognized tribes in Arizona to develop information and hear directly from the Tribes on the potential impacts of increasing the renewable energy requirements, incentivizing DG, energy storage and microgrids, and amendments to the Net Metering rules.

The Tribe supports Commissioner Kennedy's call for increasing the renewable energy portfolio requirements to 50 percent, as well as the Commissioner's support for increasing DG projects and incentivizing micro-grid development. Except that the Tribe does not support a "clean energy" goal but does support a renewable energy goal.

The following are proposals:

- Amend the definition of "Distributed Generation" to include micro-grid systems.

- Amend the definition of "Distributed Generation" to allow for behind the meter generation for multiple customer loads, or multiple loads for the same customer

- Amend the definition of "Net Metering" to include aggregate and virtual net metering.

- Amend Section R14-2-1806 "Extra Credit Multipliers" to add a multiplier for buying power from renewable energy projects on tribal lands. In the alternative, create a set-aside that at least 20 percent of a regulated utility's renewable energy requirement must be obtained from projects located on tribal lands.

- With respect to the net metering rules, Article 22, the Tribe recommends that the rules be amended to include aggregate and virtual net metering.

Inter-Tribal Association of Arizona ("ITAA") adopted a resolution: Please see ITAA Resolution 0219, filed in the Docket.

Arizona Public Service Company ("APS")

APS believes that modifications to the REST should highlight the emphasis on clean energy through an increased deployment of renewable energy and clean technologies, while also focusing utility resource planning around clean energy in a meaningful and sustainable way.

APS offers the following suggested objectives:

- Increased Renewable Energy Requirement: An updated REST requirement that increases the percentage of renewable energy serving retail load;

- A Long-Term Clean Energy Goal: A clean energy goal would focus the state's priorities and should broadly include a wide-range of emissions-free resources, behaviors, and technologies on both sides of the meter,

- DG 2.0: A distributed generation policy that expands eligible technologies, uses compliance multipliers instead of mandates to encourage adoption, and more accurately accounts for the measurable costs and benefits of DG;

- Cost Cap to Protect Customers: A modified REST should protect customers from unnecessary costs by capping compliance obligations on the basis of cost, with the obligation rolling forward to a year in which the costs fall below the cap; and

- Full Integration with Resource Planning: The updated rules should be fully integrated with the utility's resource planning process to improve efficiencies and ensure that renewable and clean energy resources play a primary role in long-term resource plans.

LEAN Energy US (April 1, 2019)

LEAN encourages the Commission to further investigate the Community Choice Aggregation ("CCA") model as a successful and impactful approach to achieving consumer energy choice, lowering electric generation costs and dramatically reducing harmful carbon emissions.

CCA is a shared-service model between local governments and investor-owned utilities that allows municipalities to pool their electrical load for the purpose of reducing costs, greening the grid and boosting local economics.

Community Choice Aggregation allows a city, county or a group of them to aggregate their electric loads for the purpose of procuring and/or developing electricity for their business, residential, and local government accounts. CCAs exist for four primary reasons: 1) customer choice, 2) cost savings, 3) cleaner, greener power, and 4) economic development and self-determination driven by what citizens, not monopoly utilities, want.

LEAN Energy US has attached a PowerPoint presentation to its filing.

Docket No. E-00000Q-17-0138

Salt River Project ("SRP") (November 28, 2018)

SRP submitted an update on its current efforts in the Cragin Watershed Protection Project; the Coronado Generating Station's biomass co-firing that is anticipated to allow for blend of 7.5 percent biomass in one of the units; its Verde Watershed Forest Restoration investment of $400,000; and its lobbying efforts in Congress for legislative changes. SRP urged the Commission to issue a policy that expresses its support for the further development of biomass in Arizona but does not mandate the size or timing of such facilities.

APS (November 21, 2018)

APS recommended that the Commission explore a suite of possible solutions for the use of forest biomass and not be limited to electric generation. APS provided an estimate of the above-market cost of using forest bioenergy and stated its support for legislation as a funding source.

TEP (November 14, 2018)

TEP recommended that the required biomass capacity be based on the proportional amount of total retail sales as reported in the respective Subject Utilities' REST Compliance Report and this capacity amount should remain static during the compliance period. TEP also recommended that its costs should be recovered through the Purchased Power Fuel Adjustor Clause ("PPFAC") as opposed to the REST to more equitably allocate biomass costs to all customers.

Trico Electric Cooperative ("Trico") (November 13, 2018)

Trico believes the most cost-effective means of complying with a biomass requirement would be for it to purchase REC from a biomass facility to acquire its share of the proposed requirement and that an appropriate REC price and cost recovery mechanism would need to be determined through a proceeding.

NovoPower (November 27, 2018)

NovoPower stated that the cost of biomass-generated electrons is no longer affordable in comparison to other intermittent renewable power sources, but it believes that electrons generated at a biomass facility are more valuable due to the positive externalities arising from the use of forest biomass as a fuel source. NovoPower is concerned about the reliance on the State Legislature as a funding source, noting that according to the Arizona State Constitution, a current legislative body cannot bind a future legislative body to an appropriation.

Eastern Arizona Counties Organization (December 10, 2018)

These organizations submitted comments regarding the limits of burning biomass at landscape scale, which negates some of the benefits of restoration and puts United States Forest Service ("USFS") at risk of violating EPA and Arizona Department of Environmental Quality

("ADEQ") air quality standards. The comments also referred to other uses for forest biomass. If a technology (cellulosic biofuels, biogas, biochar, etc.) existed to dispose of forest biomass at scale and in an economically-viable way, a facility would be already in operation.

Continued generation through the use of a new 20-year PPA agreement with the existing White Mountain facility and the addition of a new facility on the Mogollon Rim was recommended to meet a goal of 90 MW in forest bioenergy. Furthermore, these organizations recommended a mandate that regulated utilities purchase the proportion of 90 MW that corresponds to the proportion of the ratepayers they serve, contingent upon the purchase by non-regulated utilities of the proportion of the 90 MW that corresponds to the proportion they serve.

Arizona Wildlife Federation ("AWF") (December 4, 2018)

AWF recommended that the Commission require a small percentage of the energy production of the state must be generated from biomass removal projects. This will provide investors with an assurance that these forest product removal companies and sawmills are a viable long-term investment in Arizona. Furthermore, AWF believes the most equitable method of recovering the cost of forest bioenergy would be to impose a forest biomass energy surcharge on regulated electric utility customer bills.

The Nature Conservancy (November 27, 2018)

The Nature Conservancy recommended incentives spread across multiple industries due to the low value of the wood being thinned from Arizona's forests coupled with the long hauling distances required to deliver biomass from the forest to industry.

Arizona Council of Trout Unlimited (November 27, 2018)

The Arizona Council of Trout Unlimited stated that the 4FRI project has not been able to attract biomass energy suppliers to the state to assist in the maintenance of the forest and requested that the ACC require a small percentage of energy production in Arizona be generated from biomass removal projects. The most equitable method of recovering the cost of forest bioenergy would be to impose a forest biomass energy surcharge on regulated electric utility customer bills.

Similar comments were filed by: *Grand Canyon Trout Unlimited (December 4, 2018)* and *Gila Trout Unlimited (December 3, 2018).*

Osborn Maledon (November 21, 2018)

Osborn Maledon submitted comments on behalf of clients who invest in biomass projects that convert wood into biofuels. It recommends that any policy that the Commission adopts should recognize the availability of alternative solutions that will not burden Arizona ratepayers with higher electric bills caused by uneconomical, long-term electric supply contracts.

Individual: Jim Strogen (December 4, 2018)

Jim Strogen submitted his concerns regarding the vulnerable watershed surrounding the C.C. Cragin Reservoir, which the residents of Payson will soon depend on for their water supply. Dr. Strogen stated that an assurance that a certain percentage of future energy generation using forest biomass is vital to the biomass industry.

SW Ecology, LLC ("SW Ecology") (December 6, 2018)

SW Ecology was concerned about new diverse wood product investment and development being crowded out by a mandate committing all available biomass to meet the 90 MW of power generation. The biomass issue does not necessarily "drive" the success or failure of forest restoration outcomes.

Certus Financial (December 6, 2018)

Certus Financial represents the owner of a 50 MW woody biomass power plant currently located in Texas, but available to be relocated to Arizona. The plant is currently being preserved at a considerable cost to the owner in order to keep it available for relocation. These costs cannot be incurred indefinitely.

USFS (December 6, 2018)

A strategic five-party partnership comprised of USDA Forest Service Southwestern Region, Arizona Department of Forestry and Fire Management, SRP, U.S. Bureau of Reclamation, and Arizona Commerce Authority is working together to design the next large-scale RFP within the 4FRI area. The intent is to support existing industry and attract new sustainable industry that will construct infrastructure and significantly increase the pace and scale of restoration. The RFP is being prepared with a sense of urgency and is expected in early 2019. Contracts are anticipated to be awarded in the Fall of 2019.

Flagstaff Fire Department (December 3, 2018)

The Flagstaff Fire Department submitted comments regarding the Flagstaff Watershed Protection Project. This $10 million effort, approved by Flagstaff voters in 2012 and underway today, is focused on treating city, state, and federal lands, much of it outside Flagstaff itself, to reduce the risk of catastrophic wildfire and severe post-fire flooding. It is the only bond-funded, citizen approved (74 percent) effort of its kind in the country.

Coconino County Board of Supervisors ("Coconino County") (December 5, 2018)

Coconino County does not support asking the Arizona Legislature to address the biomass question and believes the ACC has the authority to address this issue. To be fair to all Arizona citizens, mandates on regulated utilities that purchase bioenergy could be contingent on non-regulated utilities purchasing a comparable amount of bioenergy for their ratepayer base.

Individual: Tom Osterday (December 5, 2018)

This APS/SRP customer asked for a requirement that the Commission require utilities to purchase a modest amount of energy from biomass-fueled energy production and authorize the electric utilities to pass the incremental costs along to all their customers, which he estimates to be $1-2 per month. He asked that the Commission not pass this issue to the State Legislature.

HM3 Energy ("HM3") (December 7, 2018)

HM3 is in the process of selling a $4.4 million demonstration plant that was used over the last two years to prove its torrefaction and densification technology on a variety of feedstocks, including juniper and pine forest slash, as well as sawmill residues. We successfully made briquettes from all sources. Test burns conducted in Western Research Institute in Wyoming's coal boiler last year demonstrated that our juniper torrefied briquettes burn much more cleanly than coal and have similar energy content to coal when burned in a coal boiler.

Arizona BioEnergy (December 12, 2018)

Most of Arizona's forests are on Federal land. This is a major problem for our primary business of using woody waste to create renewable transportation fuels, because wood waste from Federal land does not qualify for Renewable Tax Credits. The Federal law allows us to earn Renewable Tax Credits on State land, Private land, and Tribal land. We think the law that doesn't allow woody waste from Federal land to qualify for Renewable Tax Credits needs to be revisited. We suggest that Arizona advocate for woody biomass from Federal land to qualify for Renewable Tax Credits.

Biomass Thermal Energy Council ("BTEC") (December 12, 2018)

BTEC and its members expressed its support for the Commission's discussions on the role of forest bioenergy in the state of Arizona.

Individual: Susan MacKay (December 13, 2018)

This APS ratepayer asked the Commission vote "no" on the request that APS expand its renewable energy portfolio to include a greater use of forest biomass. It makes no sense to force the public to pay for the development of a non-competitive source of energy that ends up using large amounts of non-renewable fossil fuels for transportation, and, at the same time, contributes to the emission of greenhouse gases both in the transportation of the biomass and the burning of it to run the generators.

Individual: Kenny Evans (December 17, 2018)

This former mayor of Payson calculated that the cost of wildfires in Arizona have cost a minimum of $7 billion and urged the Commission to require significant generation of electricity from biomass.

Town of Pinetop-Lakeside (December 17, 2018)

The mayor of Pinetop-Lakeside urged that the Commission: 1) call for the generation of 90 MW of biomass electricity for 20 years; 2) make the purchase contingent on non-regulated utilities continuing to purchase their share; 3) include provisions in the rule that reduce dollar for dollar above-market rates for any funding from outside sources; and 4) allow the state to invoice and apply for grants annually with the federal government for the above-market cost of biopower.

Similar comments have been filed by: *Sue Sitko (December 17, 2018); David Smith, Town of Taylor (December 17, 2018); Keith Johnson, Town of Pinetop-Lakeside (December 17, 2018); Lynn Krigbaum, Town of Pinetop-Lakeside (December 17, 2018); James Walker (December 6, 2018); Travis Bruner, Grand Canyon Trust (December 6, 2018); Brad Powell, Arizona Wildlife Federation (December 4, 2018); Paul David, Graham County Board of Supervisors (December 3, 2018); Jason Whiting, Navajo County Board of Supervisors (December 3, 2018); Patrick Call, Cochise County Board of Supervisors (December 3, 2018); Tommie Martin, Gila County Board of Supervisors (December 3, 2018); Travis Simshauser, Apache County Board of Supervisors (December 3, 2018); Pascal Berlioux, Eastern Arizona Counties Organization (December 3, 2018); Steve Williams, Navajo County (December 17, 2018);* and *Dawnafe Whitesinger, Navajo County (December 17, 2018).*

Individuals: John and Ruth McKain (December 18, 2018)

These Payson residents support the use of 90 MW of biomass power generation. The estimated increase in electric bills is warranted if major fires, loss of life, and loss of property can be mitigated.

Similar comments have been filed by: *Sheryl Eaton (December 17, 2018).*

Individual: Marcia Karasek, Kambrio (December 17, 2018)

The impact of the projected timber industry growth facilitated by responses to the January 2019 4FRI RFP will change the assumptions laid out in the staff report regarding the value of sustaining the bioenergy industry. Considering bioenergy production without close coordination with the 4FRI RFP responses and potential funding poses an unnecessary burden on the ACC and a risk to the investments made to date for forest stewardship by the state. Though the costs now based on past projections are high, any disruption of bioenergy production would have much higher costs.

Individual: Thomas Holl, Canyon Creek Logging (December 17, 2018)

Mr. Holl commented that biomass has very little value, but the value is that they are removed from the forest creating a healthy forest. Without the Biomass plant, his business will suffer. The paper mill closed, and the coal power plants are next. Mr. Holl supports the operation of the NovoPower plant.

Individual: Jolene Held (December 18, 2018)

Ms. Held supported the generation of 90 MW of forest biomass electricity for 20 years, with non-regulated utilities purchasing a 30 percent share. Federal grants to cover the above-market cost of biomass electricity.

Individual: Earl Christian (December 18, 2018)

This former forester commented about the importance of the 4FRI program to the protection of Northern Arizona communities and that he believes the Commission could be a deterrent to this program. He supported biomass generated electricity.

Individuals: John and Ruth McKain (December 18, 2018)

These Payson residents support the use of 90 MW of biomass power generation. The estimated increase in electric bills is warranted if major fires, loss of life, and loss of property can be mitigated.

Similar comments have been filed by: *Paul Watson* December 3, 2018.

Individual: Walt Noot (December 19, 2018)

This Payson resident commented that the projected 1-4 dollars per month APS bill increase is inconsequential when compared to the good the plan would do.

Similar comments have been filed by: *Ralph Rogers* December 17, 2018 and *Judith Simons* December 17, 2018.

Individual: Gerald Reynolds (January 4, 2018)

Mr. Reynolds, a resident of Strawberry, commended the Commission to require utilities to produce energy from biomass and that the Commission should take leadership in identifying additional sources of revenue to grow the biomass program. The end goal of the biomass program should be to save communities from wildfires.

Individual: Valerie Loving (December 20, 2018)

This resident of Northern Arizona agreed with forest advocates on three points: 1) the generation of biomass electricity for 20 years by requiring utilities to buy a share of the power generated, 2) calling on SRP to purchase 30 percent of the state's biomass energy, and 3) allow federal grants to help cover costs.

Individuals: Christian Johnson and Mike Baskin (December 20, 2018)

These residents of Show Low commented that the program that thins the forest and uses the product for the production of biopower should not be cut.

Individual: Patricia Kaiserman (December 20, 2018)

This forest restoration advocate urged the Commission to increase the amount of biomass used for electric generation from 28 MW to 90 MW.

Individual: Pam Morrow (January 2, 2019)

This customer requested that the NovoPower facility be allowed to expand or continue to operate.

Eastern Arizona Counties Organization (February 12, 2019)

The organization submitted comments requesting that regulated utilities must demonstrate that alternative use projects use a volume of biomass comparable to the volume of biomass the number of MW waived would have used and to document annually the volume of forest restoration biomass used. It would also like the biomass requirement be sourced from Arizona forest restoration treatments.

Individual: Dorothy Holasek (March 18, 2019)

This resident of Snowflake commented that biomass energy is not clean or renewable. Regardless of their size, biomass plants produce more global warming CO2 than fossil fuel plants. Biomass is equivalent to or worse than coal for the following pollutants: particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxides, lead, mercury, and other hazardous pollutants which can cause cancer, reproductive effects, lung disease, heart disease and strokes, along with the worsening of diabetes and autoimmune diseases. Furthermore, biomass is wasteful of precious water, which is something Arizona cannot afford.

Individuals: Bill and Marsha Sullivan (March 20, 2019)

These consumers commented that recent scientific studies recognize that biomass energy produces significant greenhouse gas emissions, which has destroyed the argument that it is better than other power sources. One of the most unrecognized issues regarding biomass plants is that they require a great deal of water, which is taken from our limited water aquafer that cannot be replaced. Furthermore, there are far better uses of forest waste than biomass plants and forest biomass burning is an extremely ineffective fire prevention tool and will require never-ending increases in APS ratepayer subsidies.

APS (March 20, 2019)

APS has begun evaluating the feasibility and cost of converting a unit at its Cholla power plant to burn biomass. Converting a Cholla unit would require a capital investment, with APS expecting to own and operate the facility at Cholla, and to potentially sell some of the output to other Arizona utilities. APS submitted comments to inform the Commission and interested parties that it intends to file a report summarizing the results of the evaluation within the next 60 days. If

the analysis shows that the Cholla conversion is more cost-effective than other alternatives, it will propose to move forward on the project with the Commission's approval.

Grand Canyon State Electric Cooperative Association ("GCSECA") (April 11, 2019)

GCSECA commented that issues exist with the reliability of biomass energy and the availability and cost of transmission to make biomass available to all electric utilities under the Commission's jurisdiction. The primary responsibility for good forest management falls squarely on the federal government, which owns the vast majority of Arizona's forests, as well as the State of Arizona, which has statutorily acknowledged its legal obligation for ensuring the state's forests are properly managed and protecting the public health and safety of the people and property of the state. The Commission and the utilities it regulates have no direct responsibility for forest management or suppression of forest fires before or after they start. GCSECA recommended that the Commission adopts an objective of having 60 MW for its regulated electric utilities developed through forest waste and under contract by 2022.

City of Flagstaff (April 11, 2019)

The City of Flagstaff urged the Commission to change the REST rule to mandate the generation of 60 MW of bio-electricity and to allow utilities to adapt their tariff to ratepayers to reflect the additional cost of biomass electricity. The Flagstaff Watershed Protection Project, approved by City voters in 2012 and underway today, devoted $10 million to treat city, state, and federal land, much outside of Flagstaff, to reduce catastrophic wildfire and severe post-fire flooding. It is the only bond-funded, citizen-approved effort of its kind in the country.

USFS (April 12, 2019)

The Forest Service is working with SRP, Bureau of Reclamation, and the Arizona Commerce Authority to issue 4FRI's second RFP. This RFP and subsequent contracts will be among the first in the Agency to utilize the 20-year stewardship authority authorized under the 2018 Omnibus bill. New contracts are expected to spur existing and new industry investment to sustain a well-capitalized industry that can implement mechanical treatments across the 4FRI landscape over the next 20 years.

The following is a list of affected Dockets.

a) Docket No. RU-00000A-18-0284: In the Matter of possible modifications to the Arizona Corporation Commission's Energy Rules;

b) Docket No. RE-00000A-18-0137: In the matter of the Proposed Rulemaking to modify the Resource Planning and Procurement Rules;

c) Docket No. RE-00000A-17-0260: In the matter of the Commission's Review and Modification of the Current Net Metering Rules to Comport with Changes in Circumstances Since Their Adoption;

d) Docket No. E-00000Q-17-0138: Commissioner Dunn's Inquiry into the Role of Forest Bioenergy in Arizona;

e) Docket No. E-00000Q-16-0289: To Open a Docket for Review, Modernization and Expansion of the Arizona Energy Standards and Tariff Rules and Associated Rules;

f) Docket No. RE-00000C-14-0221: In the matter of the proposed rulemaking to modify the Renewable Energy Standard and Tariff Rules;

g) Docket No. RE-00000C-09-0427: In the matter of the Notice of Proposed Rulemaking regarding Electric Energy Efficiency Rules;

h) Docket No. RE-00000A-09-0249: In the matter of the Notice of Proposed Rulemaking regarding Resource Planning;

i) Docket No. RG-00000B-09-0428: In the matter of the Notice of Proposed Rulemaking regarding Gas Energy Efficiency Rules;

j) Docket No. RE-00000A-07-0608: In the matter of the Notice of Proposed Rulemaking regarding Net Metering; and

k) Docket No. RE-00000C-00-0377: In the matter of notice of rulemaking amendments to article 16. Retail electric competition, environmental portfolio standard rules.